ANNUAL INDEX

VOLUME 6 1971 AUTHORS

Aasen, A. J., H. H. Hofstetter, B. T. R. Iyengar and R. T. Holman. Identification and analysis of wax esters by mass spectrometry, 502
Abdel-Wahab, F. See A. A. Hafiez
Abel, Marge. See R. B. Holtz
Abraham, T. See G. R. Hildenbrandt
Ackman, R. G. Short communication re pristane and other hydrocarbons in some freshwater and marine fish oils, 520 erratum, 363
See S. N. Hooper
— See Carter Litchfield
— C. A. Eaton and Carter Litchfield. Composition of

Allen, J. E., F. W. Forney and A. J. Markovetz. Microbial subterminal oxidation of alkanes and alk-1-enes,

one subterminal oxidation of alkanes and alk-1-enes, 448

Ames, Stanley R. Isomers of alpha-tocopheryl acetate bial subterminal oxidation of alkanes and alk-1-enes, and their biological activity, 281

Anekwe, Gregory E. and Bharat C. Dubal. Short communication re fatty acid composition of triglycerides and phosphoglycerides during growth in Glomerella cingulata, 856

Arsoott, G. H. See I. J. Tinsley

Arunga, R. O. and W. R. Morrison. The structural analysis of wheat flour glycerolipids, 768

Askew, E. W., R. S. Emery and J. W. Thomas. Characteristics of fatty acid esterification by homogenates of bovine mammary tissue, 326

— R. S. Emery and J. W. Thomas. Fatty acid specificity of glyceride synthesis by homogenates of bovine mammary tissue, 777

Attaway, D. H., P. Haug and P. L. Parker. Short communication re sterols in five coastal spermatophytes, 857

Azoulay, E. See J. M. Lebeault

Balachandran, R. See L. A. Ehrhart
Barrett, J. and P. E. Butterworth. Wax esters in the
cystacanths of Polymorphus minutus (Acanthocephala), 763

Barrett, J. and P. E. Butterworth. Wax esters in the cystacanths of Polymorphus minutus (Acanthocephala), 763

Baumann, Wolfgang J. See John K. G. Kramer Bazan, Nicolas G., Jr. Short communication re free fatty acid production in cerebral white and grey matter of the squirrel monkey, 211

Beare-Rogers, Joyce L. Liver phospholipids of rats fed a choline-deficient diet supplemented with choline or methionine, 649

Behrman, H. R., G. J. MacDonald and R. O. Greep. Regulation of ovarian cholesterol esters: Evidence for the enzymatic sites of prostaglandin-induced loss of corpus luteum function, 791

Berngruber, Otto W. See Malcolm J. Thompson Bezard, Jean A. The component triglycerides of palmkernel oil, 630

Bieher, L. L. See G. R. Hildenbrandt

Bierman, Edwin L. See William C. Vogel

Birkbeck, J. A. Short communication re the fatty acid composition of depot fat in childhood: II. A comparison of superficial and deep fat, 212

Blank, M. L. See M. R. Grigor
Body, D. R. The phospholipid composition of pig lung
surfactant, 625
Boucrot, P. and J. R. Clement. Resistance to the effect
of phospholipase As of the biliary phospholipids during incubation of bile, 652
Breckenridge, W. C. See B. J. Holub
Brennan, Patrick J. and Derek P. Lehane. The phospholipids of corynebacteria, 401
Brenner, Redolife R. The desaturation step in the animal
biosynthesis of polyunsaturated fatty acids, 567
and Angel Catala. Effect of ATP on the microsomal
desaturation of unsaturated fatty acids, 873
Brockerhoff, H. Stereospecific analysis of triglycerides,
942
Brooks, C. J. W. See M. F. Gray

Brooks, C. J. W. See M. F. Gray
Brunzell, John D. See William C. Vogel
Buchnea, Dmytro. Synthesis of C-18 mixed acid diacylsn-glycerol enantiomers, 734
Buckelew, Albert R., Jr. See Giuseppe Colacicco
Bunnell, R. H. Modern procedures for the analysis of
tocopherols, 245
Burton, Robert M. Letter to the editor re sphingosine
(4-sphingenine) nomenclature, 862
Button, A. See L. A. Ebrhart
Butterworth, P. E. See J. Barrett

Capuzzi, David M. and Simeon Margolis. Metabolic studies in isolated rat liver cells: I. Lipid synthesis, ies 601

601

and Simeon Margolis. Metabolic studies in isolated rat liver cells: II. Biosynthesis of serum low density liproproteins and its regulation, 609
Carlo, Ivette A. See M. T. Ravi Subbiah
Carner, James A. See Brian L. Walker

S. J. Slinger and B. L. Walker. Short communication re homo-gamma-linolenic acid: A major polyunsaturated fatty acid of swine adrenal cholesteryl esters. 624

unsaturates that set of the setters, 624

Carroll, K. K. See R. A. Tadayon

and H. T. Khor. Effects of level and type of dietary fat on incidence of mammary tumors induced in female Sprague-Dawley rats by 7,12-dimethylbenz

female Sprague-Dawley rats by 7,12-dimethylbenz
(a) anthracene, 415
Catala, Angel. See Rodolfo R. Brenner
Cenedella, Richard J. Effects of Su-13437, a new hypolipidemic drug, upon synthesis in vivo of hepatic and
carcass total fatty acids and total cholestrol, 475
Chang, C. C., W. J. Esselman and C. O. Clagett. The isolation and specificity of alfalfa lipoxygenase, 100
Cho, Shuji. See Michihiro Sugano
Chorvath, Branko. See Melvin Fried
Christian, Jee C. See K. W. Kang
Christie, W. W., J. H. Moore, A. R. Lorimer and T. D. V.
Lawrie. Short communication re the structures of
triglycerides from atherosclerotic plaques and other
human tissues, 854

Lawrie. Snort communication re the structures of triglycerides from atheroscierotic plaques and other human tissues, 854
Clagett, C. O. See C. C. Chang
Clark, Dale A. See Hubert S. Mickel
Clement, J. R. See P. Boucrot
Colacicco, Giuseppe and Albert R. Buckelew, Jr. Lipid monolayers: Influence of lipid film and urea on the surface activity of staphylococcal a-toxin, 546
Collins, F. D. and M. A. Trewhella. Short communication re improved separation of phospholipids by countercurrent distribution, 355
Comte, J., D. Gautheron, F. Peppoux and G. Michel. Lipid composition and endogenous respiration of pig heart mitochondria, 882
Coniglio, John G. See O. B. Evans, Jr.
Conner, Robert L. See Frank B. Mallory
Courtade, S. A. and J. M. McKibbin. The composition of beef heart cardiolipins isolated by solvent and chromatographic fractionation, 260

Das, P. K. See A. Sengupta Davignon, Jean. See Yves L. Marcel

Davis, E. N. See L. L. Wallen

De Cuminsky, Berta S. and Osvaldo Mercuri. Short communication re the identification of prostagiandin Enin rat seminal vesicle gland, 278

De La Roche, I. A. See Evelyn J. Weber

Evelyn J. Weber and D. E. Alexander. Effects of fatty acid concentration and positional specificity on maize triglyceride structure, 531 erratum, 692

Evelyn J. Weber and D. E. Alexander. The selective utilization of diglyceride species into maize triglycerides, 537 erratum, 692

de Tomas, Maria Elena. See Osvaldo Mercuri

and Osvaldo Mercuri. The in vivo incorporation of labeled linoleic acid, a-linolenic acid and arachidonic acid into rat liver lipids, 787

Dhar, A. K. See Terene J. Scallen

Dillard, C. J. and A. L. Tappel. Fluorescent products of lipid peroxidation of mitochondria and microsomes, 715

Dubal, Bharat C. See Gregory E. Anekwe

Dubal, Bharat C. See Gregory E. Anekwe Dutton, H. J. See T. L. Mounts

Earle, F. R. See R. Kleiman

— See G. F. Spencer
Easter, D. J. The turnover time of dietary cholesterol in
the lactating rat, 645

— S. Patton and R. D. McCarthy. Metabolism of phospholipid in mammary gland: I. The supply of phospholipid for milk synthesis in the rat and goat, 844
Eaton, C. A. See R. G. Ackman

— See Carter Litchfield
Eberhard, Anatol and George Rouser. Quantitative analysis of the phospholipids of some marine bioluminescent bacteria, 410
Ehrhart, L. A., R. Balachandran, A. Butkus, L. A. Lewis
and A. Lazzarini Robertson. Lipid metabolism of
acetate-1-WC by leukocytes from dogs fed an arterloscleroais-inducing diet, 895
Ellis, David A. See Julian N. Kanfer
Emery, R. S. See E. W. Askew
Emken, E. A. Short communication re determination of
cis and trans in monoene and diene fatty esters by
gas chromatography, 686
— See T. L. Mounts
Eriksson, C. E. and Karin Leu. Short communication re
gas chromatographic separation of linoleic acid hydroxystearates, 144
Easelman, W. J. See C. C. Chang
Evans, C. D. See G. R. List
Evans, O. B., Jr., Richard Zseltvay, Richard Whorton and
John G. Coniglio. Fatty acid synthesis in rat testes
injected intratesticularly or incubated with 1-MC acetate, 706

Fabien, Helene D. See Yves L. Marcel
Fayad, I. See A. A. Hafiez
Fayek, K. See A. A. Hafiez
Fergus, C. L. See R. O. Mumma
Fiecchi, A. See R. Paoletti
Fischmeister, I. See S. Aleby
Flahman, Marvin A. See H. C. Agrawal
— Prema Madyastha and Arthur L. Prensky. The effect of undernutrition on the development of myelin in the rat central nervous system, 458
Fleischman, Alan I. See Paul H. Lenz
Fletcher, B. L. and A. L. Tappel. Fluorescent modification of serum albumin by lipid peroxidation, 172
Forney, F. W. See J. E. Allen
Foulds, Emmet L., Jr. See Hubert S. Mickel
Fried, Melvin and Branko Chorvath. Short communication re serum lipoprotein hydrolysis by purified lipases, 276

pases, 276 zawa, Toshio, O. S. Privett and Yoshiyata Takahashi. Effect of EFA deficiency on lipid transport from liver, 388

Galli, C., H. B. White, Jr. and R. Paoletti. Lipid altera-tions and their reversion in the central nervous sys-tem of growing rats deficient in essential fatty acids,

Galli, G. See R. Paoletti Gallo-Torres, Hugh E., O. Neal Miller, James G. Hamilton and Carol Tratnyek. Distribution and metabolism of two orally administered esters of tocopherols,

LIPIDS, VOL. 6, NO. 12

Gautheron, D. See J. Comte
Gilliam, James M. See Paul B. McCay
Glass, C. A. See G. R. List
Glass, R. L. Alcoholysis, saponification and the preparation of fatty acid methyl esters, 919
Goldberg, Sarah. See Jacob Ishay
Gomperts, D. The distribution of 17 carbon fatty acids
in the liver of a child with propionicacidaemia, 576
Goodnight, Kenneth C. and Henry W. Kircher. Metabolism of lathosterol by Drosophila pachea, 166
Goren, Mayer B. Mycobacterial sulfolipids: Spontaneous
desulfation, 40
Gray, M. F., T. D. V. Lawrie and C. J. W. Brooks. Isolation and identification of cholesterol a-oxide and
other minor sterols in human serum, 836
Greep, R. O. See H. R. Behrman
Greves, J. H. See K. W. Kang
Grigor, M. R., M. L. Blank and Fred Snyder. Short communication re structural relationships between glycerides of pig serum and adipose tisaue, 965
Grosch, Werner and Jorg M. Schwarz. Short communication re linoleic and linolenic acid as precursors of
the cucumber flavor, 351
Gruger, E. H., Jr. and A. L. Tappel. Letter to the editor
re reactions of biological antioxidants: III. Composition of biological membranes, 147
Gueldner, R. C. See R. D. Henson
Gurr, M. I. The blosynthesis of polyunsaturated fatty
acids in plants, 266
— See A. R. Johnson

Hafiez, A. A., K. Khalifa, L. Soliman, I. Fayad, K. Fayek and F. Abdel-Wahab. Mono- and polyenoic acid distribution in plasma nonesterified fatty acids in kwashiorkor, 208
 Hagen, Per-Otto. Glyceryl ether containing lipids of whole brains from germ-free and conventional rats, 170

170

Structural comparison between triglycerides and phospholipids from pig kidney, 935

Hamilton, James G. See Hugo E. Gallo-Torres

Hansen, I. A. Letter to the editor re shorthand notation for multiple-branched fatty acids, 862

Harwood, J. L., A. Sodja, P. K. Stumpf and A. R. Spurr.

Short communication re on the origin of oil droplets in maturing castor bean seeds, Ricinus communis, 851

in maturing castor bean seeds, Ricinus communis, 851

Haug, P. See D. H. Attaway

Haven, Guy T. and Herbert P. Jacobi. Effects of renal factors on in vitro hepatic cholesterol synthesis in the rat, 751

Havivi, Eli. Incorporation of P[®] orthophosphate into phospholipid of epiphyseal cartilage, 314

Hayes, Lyle, Robert R. Lowry and Ian J. Tinsley. Short communication re cholesterol interference in analysisted of fatty acid methyl esters, 65

Hedin, P. A. See R. D. Henson

Hetmann, Erich. Functions of sterols in plants, 128

Hehl, Jean L. See D. M. Sand

Henick, A. S. See W. L. Porter

Henson, R. D., A. C. Thompson, R. C. Gueldner and P. A. Hedin. Short communication re phospholipid composition of the boll weevil, Anthonomus grandis boheman, 352

Hetting, David C. Introduction to the symposium on chemistry and biochemistry of tocopherols, 238

Hess, Helen H. See Afzal A. Kahn

Hildenbrandt, G. R., T. Abraham and L. L. Bieber. Metabolism of ceramide phosphorylethanolamine, phosphatidylisositol, phosphatidylserine and phosphatidylisositol, phosphatidylserine and phosphatidylisositol, phosphatidylserine and phosphatidylisositol, phosphatidylserine and phosphatidylserine and R. See G. R. List

Hofstetter, H. H. See A. J. Aasen

dylglycerol by housefly larvae, 508
Hoffman, R. L. See G. R. List
Hofstetter, H. H. See A. J. Aasen
Holman, R. T. See A. J. Aasen
— See John K. G. Kramer
Holtz, R. Barry and Lee C. Schisier. Lipid metabolism
of Agaricus bisporus (Lange) sing.: I. Analysis of
sporophore and mycelial lipids, 176
— P. Swenson, Marge Abel and T. A. Walter. Short
communication re detection of a sebacate contaminant from chloroform, 523
Holub, B. J., W. C. Breckenridge and A. Kuksis. Studies of differential turnover of palmitoyl and stearoyl
species of glycerophosphatides using labeled unsaturated acids, 307
Hooper, S. N. and R. G. Ackman. Trans-6-hexadecenoic
acid and the corresponding alcohol in lipids of the
sea anemone Metricium dianthus, 341
Hubbard, R. W. and W. T. Matthew. Short communication re inhibition of fat cell lipolysis by low FFA
to albumin ratios, 274
Hudson, J. O. See R. L. Raymond
Hughes, Haywood N. See Peter F. Jezyk

Ikan, Raphael. See Jacob Ishay Imaizumi, Katsumi. See Michihiro Sugano Ishay, Jacob, Sarah Goldberg and Raphael Ikan. Short communication re the lipids of the oriental hornet, Vespa orientalis F., 850 Iyengar, B. T. R. See A. J. Aasen — See S. Aleby

J

Jacobi, Herbert P. See Guy T. Haven
Jamison, V. W. See R. L. Raymond
Jeffers, J. I. See W. L. Porter
Jensen, Robert G. See James G. Quinn
Jezyk, Peter F. and Haywood N. Hughes. Studies on the
hydrolysis and utilization of long chain acyl CoA
thioesters by liver microsomes, 107
Johnson, A. R. and M. I. Gurr. Isotope effects in the desaturation stearic to oleic acid, 78
Johnson, C. B. and A. T. Wilson. Chemical reactions at
lipid-gas interfaces: I. Terminal chain elongation
of fatty acids, 181
— and A. T. Wilson. Chemical reactions at lipid-gas
interfaces: II. Insolubilizing reactions induced by
an electrical discharge, 186
Jones, J. P. See R. B. Ramsey

K

Kanfer, Julian N. and David A. Ellis. Short communication re in vivo studies on ganglioside metabolism, 959—and Anne Sargent. Short communication re sphingolipid biosynthesis by particulate fractions of normal and "quaking" mouse brain, 682
Kang, K. W., G. E. Taylor, J. H. Greves, H. L. Staley and Joe C. Christian. Genetic variability of human plasma and erythrocyte lipids, 595
Keenan, T. W. See Stuart Patton
Kerpel, Shmuel, Bernard Rubenstein and David Rubenstein. The effect of prolonged fasting and of glucose refeeding on rat serum and liver lipid levels, 332
Khalifa, K. See A. A. Hafiez
Khain, Afzal A. and Helen H. Hess. Fluorescent lipids of bovine brain white matter, 670
Khor, H. T. See K. K. Carroll
Kircher, Henry W. See Kenneth C. Goodnight
Kisic, A., Y. Miura and G. J. Schroepfer, Jr. Oleate hydratase: Studies of substrate specificity, 541
Klauda, Harry C. and Forrest W. Quakenbush. Short communication re 2-monoglyceride as an aid to the absorption of cholesterol into the thoracic lymph, 964

absorption of cholesterol into the thoracic lymph, 964
Kleiman, R. See G. F. Spencer — and G. F. Spencer. Bhort communication re ricinoleic acid in Linum mucronatum seed oil, 962
— G. F. Spencer, L. W. Tjarks and F. R. Earle. Oxygenated trans-3-olefinic acids in a Stenachaenium seed oil, 617
Klein, Peter D. See Malcolm J. Thompson Knights, B. A. Sterols in chloroplasts: A description of two qualitatively distinct forms, 215
Knoche, H. W. Incorporation of oxygen-18 into the oxirane ring of cis-9,10-epoxyoctadecanoic acid, 581
Kottke, Bruce A. See M. T. Ravi Subbiah Kramer, John K. G., Ralph T. Holman and Wolfgang J. Baumann. Mass spectrometric analysis of mono-and dialkyl ethers of diols, 727
— Wolfgang J. Baumann and Ralph T. Holman. Mass spectrometric analysis of long chain alk-1-enyl ether esters and alkyl ether esters of diols, 492
Kuksis, A. See B. J. Holub
Kulkarni, S. See A. N. Siakotos
Kusamran, K. and N. Polgar. Short communication re determination of the position of ethylenic linkages in lipids, 961

Larkin, Edward C. See Hubert S. Mickel
Lawrie, T. D. V. See W. W. Christie
— See M. F. Gray
Le Stourgeon, Wallace M. See Alfred Poulos
Lebeault, J. M., and E. Azoulay. Metabolism of alkane
by yeast, 444
Lee, D. J. See J. N. Roehm
Lehane, Derek P. See Patrick J. Brennan
Lehanan, Joanna and Hal T. Slover. Determination of
plasma tocopherols by gas liquid chromatography, 35
Lens, Paul H. and Alan I. Fleischman. The hypolipidemic effect of SU-13,437 in rats with natural endogenous hypertriglyceridemis, 783

Leu, Karin. See C. E. Eriksson
Levasseur, L. A. See W. L. Porter
Lewis, L. A. See L. A. Ehrhart
Lewis, R. W. Short communication re lipid composition
of human bronchial mucus, 859
Libbey, L. M. See D. A. Withycombe
Lindsay, R. C. See D. A. Withycombe
Lindsay, R. C. See D. A. Withycombe
List, G. R., C. D. Evans, E. Selke, C. A. Glass, R. L.
Hoffman and G. E. McManis. Pyrolysis of some
acetoxynonenes, 935
Litchfield, Carter. See R. G. Ackman
— R. G. Ackman, J. C. Sipos and C. A. Eaton. Isovaleroyl triglycerides from the blubber and melon
oils of the beluga whale (Delphinapterus leucas), 674
Lopez-S, Alfredo. Serum lipid transport system: Recent
advances, 369
Lorimer, A. R. See W. W. Christie
Lowry, Robert R. See Lyle Hayes
— See I. J. Tineley
Lundberg, W. O. See Oyvind Sorbye
Lutsky, B. N. and G. J. Schroepfer, Jr. Short communication re enzymatic conversion of 5α-cholest-8(14)en-3β-ol to 5α-cholesta-8,14-dien-3β-ol, 957

MacDonald, G. J. See H. R. Behrman
Madyastha, Prema. See Marvin A. Fishman
Mallory, Frank B. and Robert L. Conner. Dehydrogenation and dealkylation of various sterols by Tetrahymena pyriformis, 149
Marcel, Yves L., Helene D. Fabien and Jean Davignon.
Net esterification in vitro of plasma cholesterol in human primary hyperlipidemia, 722
Margolis, Simeon. See David M. Capuzzi
Markey, S. P. See T. G. Tornabene
Markovetz, A. J. See J. E. Allen
Masoro, E. J. and Byung Pal Yu. The functioning of
the lipids and lipoproteins of sarcotubular membranes in calcium transport, 357
Matthew, W. T. See R. W. Hubbard
May, Hubert E. See Paul B. McCay
Medwadowski, B. See J. Van der Veen
Mellin, Donald B. See Donald G. Therriault
Mercuri, Oavaido. See Berts S. De Cuminsky
— See Maria Elena de Tomas.
Ratio of in vivo incorporation of ³H arachidonic acid and ³⁴C linoleic
acid into liver lipids from normal and diabetic rate,
203

and Maria Elena De Tomas. Short communication re early steps on the in vivo incorporation of 1-14C-linoleic acid into liver lipids from normal and essential fatty acid deficient rats, 858 Michel, G. See J. Comte Mickel, Hubert S., Emmet L. Foulds, Jr., Dale A. Clark and Edward C. Larkin. Effects of pure oxygen atmosphere in vivo on plasma lecithin-cholesterol acyltransferase reaction, 740 Mikolajczak, K. L. and C. R. Smith, Jr. Short communication re cyanolipids of kusum (Schleichera trijuga) seed oil, 349 Miller, O. Neal. See Huge, E. Gallo-Torres.

carton re cyanolipias of Rusum (Schietenera trijuga)
seed oil, 349
Miller, O. Neal. See Hugo E. Gallo-Torres
Miller, R. W. See G. F. Spencer
Miura, Y. See A. Kisic
Moore, J. H. See W. W. Christie
— See R. C. Noble
Morin, Robert J. Cholesterol esterification and cholesteryl
ester hydrolysis by rabbit and human ovaries, 815
Morrison, W. R. See R. O. Arunga
Motura, L. B. See D. Subrahmanyam
Mounts, T. L., E. A. Emken, W. K. Rohwedder and H. J.
Dutton. Metabolism of labeled isomeric octadecenoates by the laying hen, 912
Mumma, R. O., R. D. Sekura and C. L. Fergus. Thermophilic fungi: II. Fatty seid composition of polar
and neutral lipids of thermophilic and mesophilic
fungi, 584

fungi, 584 R. D. Sekura and C. L. Fergus. Thermophilic fungi: III. The lipids of Humicola grisea var. thermoidea,

Mc

McCarthy, R. D. See D. J. Easter
McCay, Paul B., J. Lee Poyer, Peter M. Pfeifer, Hubert
E. May and James M. Gilliam. A function for
a-tocopherol: stabilization of the microsomal mem-brane from radical attack during TPNH-dependent
oxidations, 297
McKibbin, J. M. See S. A. Courtade
McManis, G. E. See G. R. List

- Nagy, Steven. See Harold E. Nordby
 and Harold E. Nordby. Distribution of free and
 conjugated sterols in orange and tangor juice sacs,

- conjugated sterois in orange and tangor junce sacs, 826
 Naqvi, S. H. M. See R. B. Ramsey
 Nes, William R. Regulation of the sequencing in sterol biosynthesis, 219
 Nicholas, H. J. See R. B. Ramsey
 Nicolaides, N. The structure of the branched fatty acids in the wax esters of vernix caseosa, 901
 Noble, R. C., W. Steele and J. H. Moore. Diet and the fatty acids in the plasma of lambs during the first eight days after birth, 26
 W. Steele and J. H. Moore. Postnatal changes in the phospholipid composition of livers from young lambs, 926
 Nordby, Harold E. See Steven Nagy
 and Steven Nagy. Comparative citrus fatty acid profiles of triglycerides, monogalactosyl diglycerides, steryl esters and esterified steryl glucosides, 554

- Olcott, H. S. See J. Van der Veen
 Olmsted, C. A. Studies on the role of phospholipids in
 the triglyceride cycle: III. Liver and plasma phospholipid exchange in depancrentized dogs, 394
 Ory, Robert L. and Allen J. St. Angelo. Lipolysis in
 castor seeds: A reinvestigation of the neutral lipase,
 54

- Paoletti, E. Grossi. See R. Paoletti
 Paoletti, R. See C. Galli
 G. Galli, E. Grossi Paoletti, A. Fiecchi and A.
 Scala. Some pathways and mechanisms in lanosterol-cholesterol conversion in mammalian tissues, 134
- Parker, P. L. See D. H. Attaway Parkhurst, R. M. See W. A. Skinner Passo, S. See A. N. Siakotos Patterson, Glenn W. The distribution of sterols in algae,

- Passao, S. See A. N. Siakotos
 Patterson, Glenn W. The distribution of sterols in algae,
 120
 Patton, Stuart. See D. J. Easter
 and T. W. Keenan. The relationship of milk phospholipids to membranes of the secretory cell, 58
 Peypoux, F. See J. Comte
 Pfeifer, Peter M. See Paul B. McCay
 Phillips, Bruce E., C. R. Smith, Jr. and W. H. Tallent.
 Glycerides of Limnanthes douglasis seed oil, 93
 Phillips, Fred C. See Oyvind Sorbye
 Phleger, C. F. Short communication re liver triglyceride synthesis failure in post-spawning salmon, 347
 Polgar, N. See K. Kusamran
 Polityka, S. D. See J. N. Roehm
 Porter, W. L., A. S. Henick, J. I. Jeffers and L. A.
 Levasseur. A method of ultraviolet spectrophotometry of lipid monolayers on silica gel, 9
 L. A. Levasseur and A. S. Henick. An addition compound of oxidized tocopherol and linoleic acid, 1
 L. A. Levasseur, J. I. Jeffers and A. S. Henick. UV
 spectrophotometry of autoxidized lipid monolayers while on silica gel, 16
 Poulos, Alfred, Wallace M. Le Stourgeon and Guy A.
 Thompson, Jr. Ether-containing lipids of the slime mold, Physarum polycephalum: I. Characterization and quantification, 466
 and Guy A. Thompson, Jr. Ether-containing lipids of the slime mold, Physarum polycephalum: II.
 Rates of biosynthesis, 470
 Poyer, J. Lee. See Paul B. McCay
 Prensky, Arthur L. See H. C. Agrawal
 See Marvin A. Fishman
 Privett, O. S. See Toshio Fukazawa
 Puleo, L. E. See G. Ananda Rao

Quackenbush, Forrest W. See Harry C. Klauda Quinn, James G. and Robert G. Jensen. Letter to the editor re melting points of several enantiomeric glycerides, 692

- Ramsey, R. B., J. P. Jones, S. H. M. Naqvi and H. J. Nicholas. The biosynthesis of cholesterol and other sterols by brain tissue: I. Subcellular biosynthesis in vitro, 154
- LIPIDS, VOL. 6, NO. 12

- J. P. Jones, S. H. M. Naqvi and H. J. Nicholas.
 The biosynthesis of cholesterol and other sterols by brain tissue: II. A comparison of in vitro and in vivo methods, 225
 Rao, R. Hanumantha. See D. Subrahmanyam
 Rao, G. Ananda, L. E. Puleo, M. F. Sorrels and Raymond Reiser. Isomerization of Leglyceraldehyde to dihydroxyacetone during glyceride synthesis by rat liver microsomes, 930
 M. F. Sorrels and R. Reiser. Dietary regulation of phosphatidic acid synthesis from dihydroxyacetone phosphatide acid synthesis from dihydroxyacetone phosphate and fatty acid by rat liver microsomes, 88
 Ravi Subbiah, M. T., Bruce A. Kottke and Ivette A. Carlo. Short communication re 5α-cholestan-3β-ol: High concentration in testis of white carneau pigeon, 517

- 517
 Raymond, R. L., V. W. Jamison and J. O. Hudson. Hydrocarbon cooxidation in microbial systems, 453
 Reiser, Raymond. See G. Ananda Rao
 Robbins, W. E. See J. A. Svoboda
 Robertson, A. Laxzarini. See L. A. Ehrhart
 Roehm, J. N., D. J. Lee, R. O. Sinnhuber and S. D.
 Polityka. Deposition of cyclopropenoids in the tissue lipids of Rainbow trout fed methyl sterculate,
 426
- Polityka. Deposition of cyclopropenoids in the tissue lipids of Rainbow trout fed methyl sterculate, 426

 Rohwedder, William K. Field ionization mass spectrometry of long chain fatty methyl esters, 906

 See T. L. Mounts

 See L. L. Wallen

 Rosle, D. A. and G. G. Shone. Short communication re the iodination of methyl sterculate and deiodination of the product to reform the cyclopropenoid ring, 623
- 623
 Roubal, W. T. Free radicals, malonaldehyde and protein damage in lipid-protein systems, 62
 Rouser, George. See Anatol Eberhard
 Rubenstein, Bernard. See Shmuel Kerpel
 Rubenstein, David. See Shmuel Kerpel

S

- St. Angelo, Allen J. See Robert L. Ory
 Sand, D. M., Jean L. Hehl and H. Schlenk. Wax esters
 in fish: Turnover of oleic acid in wax esters and
 triglycerides of gouramis, 562
 Sargent, Anne. See Julian N. Kanfer
 Satyaswaroop, P. G. Lipids of bovine thyroid, 661
 Scals, A. See R. Paoletti
 Scallen, Terence J., M. W. Schuster, A. K. Dhar and
 H. B. Skrdlant. Studies on the enzymatic synthesis
 of cholesterol: Use of a liver acetone powder, 162
 Schieler, Lee C. See R. Barry Holtz
 Schlenk, H. See D. M. Sand
 Schroepfer, G. J., Jr. See A. Kisic
 See B. N. Lutaky
 Schuster, M. W. See Terence J. Scallen
 Schwartz, Jorg M. See Werner Grosch
 Sckurae, R. D. See R. O. Mumma
 Selke, E. See G. R. List
 Sengupta, A., Chandana See A. Sengupta
 Shone, G. G. See D. A. Brais

- Sengupta, A., Chandana Sengupta and P. K. Das. The trigiveride composition of Moringa concanensis seed fat, 666
 Sengupta, Chandana. See A. Sengupta
 Shone, G. G. See D. A. Rosie
 Siakotos, A. N., S. Kulkarni and S. Passo. The quantitative analysis of sphingolipids by determination of long chain base as the trinitrobenzene sulfonic acid derivative, 254
 Sinnhuber, R. O. See J. N. Roehm
 Sipos, J. C. See Carter Litchfield
 Skinner, W. A. and R. M. Parkhurst. Reaction products of tocopherols, 240
 Skrdlant, H. B. See Terence J. Scallen
 Slinger, S. J. See J. A. Carney
 Slover, Hall T. Tocopherols in foods and fats, 291
 See Joanna Lehmann
 Smith, C. R., Jr. See K. L. Mikolajczak
 See Bruce E. Phillips
 smith, Leland L. See Johan E. van Lier
 Smith, Lloyd M. See Lee-Shin Tsai
 Snyder, Fred. See M. R. Grigor
 Sodia, A. See J. L. Harwood
 Soliman, L. See A. A. Hafiez
 Sorbye, Oyvind, Fred C. Phillips and W. O. Lundberg,
 Short communication re potential function of cholesterol in blood coagulation: Amplification of phospholipid thromboplastic activity, 139
 Sorrels, M. F. See G. Ananda Rao
 Spence, M. W. The effect of a fat free diet on esterified monoenoic fatty acid isomers in rat tissues, 831
 Spencer, G. F. See R. Kleiman
 R. Kleiman, R. W. Miller and F. R. Earle. Occurrence of cis-6-hexadecenoic acid as the major component of Thunbergia adiats seed oil, 712
 Sprecher, Howard. The synthesis of 1-14C-arachidonate and 3-14C-docosa-7,10,13,16-tetraenoate, 889

- Spurr, A. R. See J. L. Harwood Staley, H. L. See K. W. Kang Steele, W. See R. C. Noble Stumpf, P. K. See J. L. Harwood Subrahmanyam, D. L. B. Moturu and R. Hanumantha Rao. On the phospholipids of Culex pipiens fatigens, see
- Sugane, Michihire, Katsumi Imaizumi, Shuji Cho and Masafuto Wada. Short communication re hepatotoxicity and lipid metabolism-IV structure and molecular species of hepatic triglyceride in rats treated with carbon tetrachloride, 141

 Suzuki, Kunihiko. Short communication re renal cerebroside in globoid cell leukodystrophy (Krabbe's Disease), 433

 Svoboda, J. A. and W. E. Robbins. The inhibitive effects of azasterols on sterol metabolism and growth and development in insects with special reference to the tobacco hornworm, 113

 Swenson. P. See R. B. Holtz
- tobacco hornworm, 113 Swenson, P. See R. B. Holtz

Т

- Tadayon, R. A. and K. K. Carroll. Effect of growth conditions on the fatty acid composition of Listeria monocytogenes and comparison with the fatty acids of Erysipelothrix and Corynebacterium, 820 Takahashi, Yoshiyata. See Toshio Fukazawa Takayasa, Ken and Iwao Yoshikawa. The influence of exogenous cholesterol on the fatty acid composition of liver lipids in the rats given linoleate and y-linolenate, 47
 Tallent, W. H. See Bruce E. Phillips
 Tappel, A. L. See C. J. Dillard
 See B. L. Fletcher
 See E. H. Gruger, Jr.
 Taylor, G. E. See K. W. Kang
 Therriault, Donald G. and Donald B. Mellin. Cellularity of adipose tissue in cold-exposed rats and the calorigenic effect of norepinephrine, 486
 Thomas, J. W. See E. W. Askew
 Thompson, A. C. See R. D. Henson
 Thompson, Guy A., Jr. See Alfred Poulos
 Thompson, Malcolm J., Otto W. Berngruber and Peter D. Klein. Preparation of tritium-labeled sterols and the synthesis of labeled-24-azacholesterol, 233
 Tinsley, lan J. See Lyle Hayes
 G. H. Arscott and R. R. Lowry. Fertility and testicular fatty acid composition in the chicken as influenced by vitamin E and ethoxyquin, 657
 Tiarks, L. W. See R. Kleiman
 Tornabene, T. G. and S. P. Markey. Characterization of branched monounsaturated hydrocarbons of Sarcina lutea and Sarcina flava, 190
 Tratnyek, Carol. See Hugo E. Galio-Torres
 Trewhella, M. A. See F. D. Collins

- Tsai, Lee-Shin and Lloyd M. Smith. Role of the bases and phosphoryl bases of phospholipids in the autoxidation of methyl linoleate emulsions, 196 Tullock, A. P. Diesters of diols in wheat leaf wax, 641

- van der Linden, A. C., and J. C. van Ravenswaay Claasen. Hydrophobic enzymes in hydrocarbon degradation, 437
 van der Veen, J., B. Medwadowski and H. S. Olcott. The lipids of krill (Euphausia species) and red crab (Pleuroncodes planipes), 481
 van Lier, Johan E. and Leland L. Smith. Sterol metabolism: XII. 26-hydroxycholesterol in commercial cholesterol, 85
 van Ravenswaay Claasen, J. C. See A. C. van der Linder Vogel, William C., John D. Brunzell and Edwin L. Bierman. A comparison of triglyceride, monoglyceride, and phospholipid substrates for post-heparin lipolytic activities from normal and hypertriglyceridemic subjects, 805

W

- Wada, Masafuto. See Michiiro Sugano
 Walker, Brian L. See J. A. Carney
 and James A. Carney. Response of rat adrenal
 cholesteryl esters to cold stress, 797
 Wallen, L. L., E. N. Davis, Y. V. Wu and W. K. Rohwedder. Stereospecific hydration of unsaturated
 fatty acids by bacteria, 745
 Walter, T. A. See R. B. Holtz
 Weber, Evelyn J. See I. A. De La Roche
 I. A. De La Roche and D. E. Alexander. Stereospecific analysis of maize triglycerides, 525
 erratum, 692
 Weets, John D. Short communication ve total fatty acids
- weete, John D. Short communication re total fatty acids of habituated and teratoma tissue cultures of to-

- of habituated and teratoma tissue cultures of to-bacco, 684
 White, H. B., Jr. See C. Galli
 Whorton, Richard. See O. B. Evans, Jr.
 Wilson, A. T. See C. B. Johnson
 Withycombe, D. A., L. M. Libbey and R. C. Lindsay.
 Volatile compounds from thermally oxidized methyl
 olente, 758
 Wu, Y. V. See L. L. Wallen

XYZ

Yoshikawa, Iwao. See Ken Takayasu Yu, Byung Pal. See E. J. Masoro Zseltvay, Richard. See O. B. Evans, Jr.

SUBJECT

Abdominal wall depot fat, human, fatty acid profile, 212
Acanthocephala, lipid comp of Polymorphus minutus, 763
Acetate, incorporation into cholesterol, 751
I-4C-Acetate, incorporation into lipids, 475
1-4C-Acetate, incorporation into lipids, rat liver cells, 601
— leukocyte lipids, arteriosclerosis-inducing diet, 895
— lipid synthesis in dog leukocytes, chain clongation, fatty acids, 895
Acetic acid, incorporation in brain of rat, 154
Acetic anhydride, for acetylation of long chain alcohols, 341

Acetone, extraction of cholesterol from chloroplasts by,

215
Acetone powder, from liver microsomes, role in cholesterol biosynthesis, 162
Acetoxynonenes, synthesis of 1,3 and 2,4, 635
Acetylation, of long chain alcohols, 341
ACP. See acyl carrier protein
Acroleine, in cucumbers, synthesis from unsaturated fatty acids, 351

acids, 351
Actinomycetes, phosphomannoinositides and fatty acids in taxonomy of actinomycetes, 401
Actinomycin D, effect on acid lipase of castor bean, 54
Acyl carrier protein, role in fatty acid synthesis in plants, 266
Acyl coenzyme A, rat, rabbit, pig liver microsomal metabolism of, 107
Acyl coenzyme A-cholesterol-O-acyltransferase, in rabbit and human ovaries, 815
Acyl coenzyme A synthetase, in bovine mammary gland, 777

Acyl transferase, in bovine mammary gland, 777
Acylated phospholipids, in corynebacteria, 401
Adenocarcinoma, rat mammary gland, effect of dietary
fats, 416
Adenoma, induced, rat mammary gland, 415
Adenoma, induced, rat mammary gland, 415
Adenoma induced, rat mammary gland, 416
Adenomary gland, 416
Adenomary gland, 777
Acylated phospholipids, in corynebacteria, 401

Adenosine tripnosphate, activity muscle sarcopiasmic reticulum, 357

— effect on microsomal desaturation of unsaturated fatty acids, 873

Adipose tissue, rat, effect of age and cold acclimation on cell size, 486

Adipose tissue, buildwardle structure, 854

cell size, 486
Adipose tissue, human, triglyceride structure, 854
Adipose tissue, buman, triglyceride structure, 854
Adipose tissue, pig, phospholipid fatty acid profile, 965
Adipose tissue, rat, monoenoic fatty acid isomers, normal,
EFA deficient diet, 831
— tocopherol content, 318
Adrenal, lipid content, effect of anovulatory drugs on, 693
Adrenal, guinea pig, cholestanol content, 517
Adrenal, pigeon, cholestanol content, 517
Adrenal, rabbit, cholestanol content, 517
Adrenal, rabbit, cholesterol esters, diet and fatty acid profile, 797
— cholesterol esters, response to cold stress, 797
— cholesterol esters, response to diet, 797
— cholesterol esters, stress and selective utilization, 797

cholesterol enters, stress and selective utilization, 797

Adrenal, swine, cholesteryl ester fatty acid comp, 624
Adrenal gland, metabolism of vitamin E, 318
Adrenal gland, rat, tocopherol content, 318
Agaricus bisporus (Lange) Sing., lipid comp, 176
Age, effect on acyl desaturation, 567

rat, effect of on adipose tissue cell size, 486

rat, effect of on adipose tissue cell size, 486

rat, effect of on metabolism, 486
Albumin, fatty acid acceptor, post-heparin plasma, 805

— FFA bound to, inhibition of lipolysis, 274

modification by lipid peroxidation, 172

serum, bovine and human, peroxidized, 172

Alcohol dehydrogenase, in alkane grown yeast, 444

inducible, in Pseudomonas aeruginosa, 437

NAD*-linked from yeast, Michealis constant, 444

purification of, 444

Alcohol profile, dolphin (Inia geoffrensis) wax esters, 69

Alcohols, esters with fatty acids, melting points, 421

long chain, esters with fatty acids, infrared spectra, 421

oxidation of hydrocarbons by micro-

421
— produced by oxidation of hydrocarbons by mic organisms, 448
Alcohols, long chain, in acanthocephalan waxes, 763
— in sea anemone, 341
Alcoholysis, of fatty acid methyl esters, 919
— reaction mechanism, kinetics, 919

Aldehyde, development from unsaturated fatty acids by a cucumber homogenate, 351 NMR and mass spectra, 961
Aldehyde factor, of bacterial bioluminescence, 410
Alewife, pristane content of oil, 520

Algae, blue-green, sterols isolated from, 219

— sterol distribution in red, green and brown, 120

Alkanes, metabolism by yeast, 444

Alkenes, locations of double bonds, 190

Alkenes, locations of double bonds, 190

— oxidation by permanganate-periodate, 190
Alk-1-enyl ethers, mass spectra, 492
Alk-1-enyl glyceryl, ethers in germ-free and conventional rat brain, 170
Alk-1-enyl phosphoglycerides. See also plasmalogens Alk-1-enyl-2-acyl-glyceryl-3-phosphoryl choline, in pig heart mitochondria, 882
Alk-1-enyl-2-acyl-glyceryl-3-phosphoryl ethanolamine, in pig heart mitochondria, 882
2-Alk-1'-enyloxyl-0-acyl-ethanol, mass spectra, 492
2-Alkoxy-1-0-acyl-tehanol, mass spectra, 492
3-Alkoxy-ethanols, diol ethers, 727
3-Alkoxy-propanols, diol ethers, 727
3-Alkoxy-propanols, diol ethers, 727
3-Alkoxy-propanols, 1-alkyl glyceryl ethers, slime mold,

Alkyl glyceryl ethers, in germ-free and conventional rat brain, 170 1-Alkyl glyceryl ethers, alkyl ether profile, slime mold, 486

Alkyl phosphoglycerides. See also glyceryl ether phospholipids

lipids
Alkylation, of a-tocopherol, 240
Almond, tocopherol content of seeds, 291
Amino acids, comp of proteins from sarcoplasmic reticulum, 357
— destruction by free radicals from unsaturated fatty acids, 62

destruction by free radicals from unsaturated fatty acids, 62

Amino groups, effect on autoxidation of linoleate emulsions, 196

Ancistrodon piscivorus piscivorus, venom hydrolysis of phospholipids by, 352

Anemone, sea, diacylglycerylethers, fatty acid profile, 341

— fatty acid profile, 341

— free sterol content, 341

— trans-6-hexadecenole acid in, 341

— lipid content, 341

— phospholipids, fatty acid profile, 341

— triglyceride, fatty acid profile, 341

— wax esters, fatty acid profile, 341

— wax esters, fatty acid profile, 341

Anovalstory drugs, and lipids, a review, 693

— effect on rat's and human lipid metabolism, 693

— mode of action, 693

— mode of action, 693

Anteiso-, branched hydrocarbons in microorganisms, 190

Anthonomus grandis Boheman, lipid comp, 352

Antibiotic, polyene, effects of on sarcotubular membrane function, 357

Antipatidat, BHT protection of maiza triglescytide, 595 Anthonomus grandis Boheman, lipid comp, 352
Antibiotic, polyene, effects of on sarcotubular membrane function, 357
Antioxidant, BHT, protection of maize triglycerides, 525
— BHT, use in TLC to prevent autoxidation, 525
— bases and phosphoryl bases of phospholipids, 196
— effect on lipid-protein oxidation, 62
Antiserum, prep against rat serum lower density lipoproteins, 699
Agarta, human, cholestanol content, 517

Antiserum, prep against rat serum lower density inpoproteins, 609

Aorta, human, cholestanol content, 517
— stereospecific fatty acid profile, 854

Apolipoproteins, in human serum, 369
Apparatus, for corona discharge, lipid.gas interfaces, 186

1-4C-Arachidate acid, methyl ester, GLC, 889
Arachidic acid, formation by free radicals, 181
Arachidonic acid, cesterification, liver glycerides, 307
— in phospholipids of sheep liver, 926
— incorporation into rat liver lipids, 203, 787
— synthesis from linoleate in rat, 47
1-4C-Arachidonic acid, methyl ester, GLC, 889
— synthesis of, specific activity, 889
— synthesis of, specific activity, 889
Argentation chromatography. See chromatography, thin-layer

layer Argon, electrical discharges, fatty acid polymerization, 186

Arteriosclerosis, 1-14C-acetate incorporation into leukocyte lipids, 895

— EFA deficient diet, dogs, leukocytes, 895
— leukocyte lipid metabolism, 1-14C-acetate, dogs, 895
Asparagus, tocopherol content, 291
Assay, radio-chemical, microsomal acyl CoA metabolism, 107

spectrophotometric, microsomal acyl CoA metabolism, 107

olism, 107

Atherosclerosis, cholesterol α-oxide in serum, 836
— effect of anovulatory drugs or, 693

Atherosclerotic plaques, human, triglyceride structure, 854
ATP. See adenosine triphosphate
Autoradiography, of phospholipids on TLC plates, 844

Autoxidation, effect of β-hydroxyl group, 196
— effect of nitrogeneous bases on linoleate emulsions, 196

effect of a-tocopherol in rat, 297 linoleic acid monolayers on silica, 16 mechanism, kinetics in linoleate emulsions, 196 monolayers on silica, 16

of cholesterol, 85
of methyl linoleate emulsions, mechanism, 196
pH, effect on linoleate emulsions, 196
products from linoleic acid, 16
reaction mechanism of thermally induced, 758
thermal, methyl oleate, 758
X-Avenasterol, in chloropiasts, 215
24-Azacholesterol, synthesis of "H-labeled compound, 233
Azasterols, inhibitory effect on several insects and insect larva, 113
inhibitory effect on sterol metabolism. 113 essential fatty acid deficiency, 378 of cholesterol, 85 ether lipid comp, 170 ether lipids, hydrocarbon chain profile, 170 fatty acid profile from various myelin lipid classes, 458 larva, 113
Inhibitory effect on sterol metabolism, 113
Inhibitory effect on Tobacco hornworm, 113 Bacteria, fatty acid comp, 820
— growth media, 820
— taxonomy, 820
Bacteria, bioluminescent, condition for growth, 410
— fatty acid profile, 410
— lipid extraction, 410
— lipid extraction, 410
— poly-s-hydroxybutyrate, 410
Barley, tocopherol content of seeds, 291
Beef, heart, isolation of diphosphatidyl glycerol from, 260
Behenic acid, formation by free radicals, 181
Benozyl peroxide, oxidation of tocopherol, 240
7,12.dimethylBenz(a)anthracene, mammary carcinogenesis in rats, 415
Benzene, alkyl-substituted, hydroxylation of, 437
— thermal oxidation product of methyl oleate, 758
Beta vulgaris, chloroplast sterols, 215
Bile, rat, incorporation of fatty acids into phospholipids, 307 Bile, rat, incorporation of fatty acids into phospholipids, 307

— phospholipids, resistance to phospholipase As, 652
Bile salts, use in lipase assay, 806
Bioassay, liver storage test, plasma for vitamin E, 281

— of vitamin E, a-tocopherol, a-tocopherol acetate, 281
Biochemistry of hydrocarbon degradation, Symposium, beginning on page 437
Bioluminescent bacteria, condition for growth, 410

— light output, 410

— light output, 410

— light output, 410

Biosynthesis, mouse, effects of drugs on lipid, 475
Biphenyl, microbial oxidation, 453
Biphenyl, microbial oxidation, 453
Bilod, cagulation, 139

— glucose and phospholipid transport, 394
Blood, rat, tocopherol content, 318
Boll weevil, lipid content, 352

— phospholipid comp, fatty acid profile, 352
Bone, lipid content, 314
Boron trifluoride, in saponification, methanolysis of esters, 919

— use it apple of aphingolipids, 254 Bone, Ipid content, 314
Boron trifluoride, in saponification, methanolysis of esters, 919
use in anal of sphingolipids, 254
Bovine, brain, fluorescent lipids from white matter, 670
Bovine, mammary gland, fatty acid specificity, triglyceride synthesis, 777
glyceride synthesis, 777
incubation medium for triglyceride synthesis, 777
prep of homogenates, 777
Bovine, mammary tissue, fatty acid esterification, 326
phospholipid synthesis, 326
bovine, thyroid, phospholipid comp, 661
Bovine serum albumin, peroxidation, fatty acids, 172
reaction with 2,3-butanedione, 172
reaction with crotonaldehyde, 172
reaction with 2,4-hexadienal, 172
role in triglyceride synthesis, 326
Brain, grey and white matter, free fatty acids, ischemia, 211
human, cholesterol biosynthesis in, 134

Brain, grey and white matter, free fatty acids, ischemia, 211

human, cholesterol biosynthesis in, 134
human, sterols, 134
lipid extraction, 935
sterols, metabolism, 225
sterols, metabolism, 225
sterols, metabolism in rat, 154
Brain, bovine, white matter, fluorescent lipids, 670
Brain, chicken, distribution of TPNH-oxidase activity in microsomes, 297
Brain, human, distribution of TPNH-oxidase activity in microsomes, 297
Brain, lipids, metabolism in rat, 154
Brain, mouse, particulates, systhesis of sphingolipids, 682
Brain, pig, fatty aldehydes profile of polar lipids, 985
Brain, rat, adult, sterol metabolism, 225
cell free extracts, sterol metabolism in, 225
cholesterol metabolism in, 225
cholesterol metabolism in, 225

conversion of desmosterol to cholesterol, 154 distribution of TPNH-oxidase activity in micro-

effect of malnutrition on myelin development and chemical comp, 458

cholesterol metabolism in, 225 comp of non-saponifiable lipids, 154

es, 297

fatty acid profile from various myelin lipid classes, 458 ganglioside metabolism in, 959 glycolipid, synthesis from glucose, 431 homogenates, sterol metabolism in, 225 incorporation of acetic acid in sterols of, 154 incorporation of mevalonic acid in sterols of, 154 incorporation of Tu-10-glucose into sterols of, 154 isolation of microsomes, mitochondria, 154 isolation of myelin, 458 lanosterol metabolism, 154 lipids, synthesis from glucose, 431 metabolism, in vivo and in vitro differences in sterols synthesis, 225 metabolism of glucose, leucine, 431 mevalonic acid metabolism in, 225 microsomes, sterol metabolism in, 225 monoenoic fatty acid isomers, normal, EFA deficient diet, 531 myelination, 225 microsomes, sterol metabolism in, 225
monoenole fatty acid isomers, normal, EFA deficient diet, 831
myelination, 225
non-saponifiable compounds in, 225
phospholipid, synthesis from glucose, 431
phospholipid content in EFA deficiency, 378
prep of myelin, 378
proteins, synthesis from glucose, leucine, 431
quantitation of lipid classes in myelin from, 458
sodium acetate metabolism in, 225
squalene metabolism in, 225
sterol ester metabolism in, 225
sterol metabolism in audit, 154
sterol metabolism in audit, 154
sterol metabolism in audit, 164
sterol metabolism in syoung, 154
subcellular fractions, 154
undernourished, weight of, 431
weight changes in EFA deficiency, 378
young, sterol metabolism, 225
Brain, squirrel monkey, content of free fatty acids, 211
Brain lipids, metabolism, 225
Brain sterols, isolation and characterization of, 85
Brassicasterol, content of oranges, 826
— in chloroplasts, 215
Breast cancer, human, correlation with fat intake, 415
Bromodecane, inhibitor of alcohol dehydrogenase, 444
Bromomercuric adducts, of unsaturated fatty acids, separation by TLC, 378
Butanol, dehydrogenation of, 437
Butter, fatty acid profile, 415
— induction of mammary tumor in rats, 415
di-Butyl peroxide, free radical formation from, 181
Butylated hydroxy-toluene (BHT), antioxidant, 525
— protection of maise triglycerides, 525
— use in TLC, 525
— Butylcyclokexane, microbial oxidation, 453
Butyric acid, effect on triglyceride synthesis, 777
— incorporation into triglycerides by mammary tissue, 326

Calcification, and phospholipids, 314
Calcium, fatty acid acceptor, post-heparin plasma, 805
— transport and sarcotubular membrane lipid-protein structure, 357
Calorigenic effect, influence of age, 486
— influence of cold acclimation, 486
— of norepinephrine on rats, 486
Campesterol, content of various species of orange, 826
— in chloroplasts, 215
— in marine plants, 687
— synthesis of ³H-labeled compound, 233
Candida tropicalis, metabolism of alkanes, 444
Carbon tetrachloride, effect on liver triglyceride, 141
Carbonyl compound, unsaturated, ultraviolet spectra of compound adsorbed on silica, 9
Carbonyls, unsaturated and a-di-, reaction with albumin, 172 Carbonyls, unsaturated and a-di-, reaction washing 172
a-Carboxyl amino group, antioxidant activity, linoleate emulsions, 196
Cardiolipin, beef heart, ester groups and fatty acids, 260
— effect of prep method on comp and properties, 240
— fatty acid incorporation, rat liver, 307
— fatty acid profile in boll weevil, 352
— in bioluminescent bacteria, 410
— in boll weevil, 352
— in mosquito eggs, larvae, pupae, adults, 867
— in rat heart mitochondria, 882
— synthesis in leukocytes, 896
Carotenoids, content in human serum, 369
Carrots, tocopherol content, 291 Carrots, tocopherol content, 291
Cartilage, lipid content, 314
Cartilage epiphyseal, SP incorporation into phospholipids, 314

mobility, silica gel-silver nitrate TLC, 836
retention index GLC, on OV-1, OV-17, 836
ultraviolet spectra, 836
Cholesta-l-en-one, in human serum, identification of, 836
mobility, silica gel-silver nitrate, 836
retention index GLC, on OV-1, OV-17, 836
ultraviolet spectra, 836
Cholesta-l-en-one, mass spectra, 836
Cholesta-l-en-one, mass spectra, 836
Cholesta-5,6,22-trien-3β-01, formation of from cholesterol in T. pyriformis, 149
Cholesta-5,7,22-trien-3β-01, synthesis in T. pyriformis, 149
5a-Cholestan-3β-01, in pigeon testis, 517
5a-Cholestan-3β-01, mobility, silica gel-silver nitrate
TLC, 836 Casein, effect of feeding on serum cholesterol esters in rats, 369
Castor bean, absence of neutral lipase, 54
— acid lipase effect of actinomycin D, 54
— acid lipase effect of gibberellic acid, 54
— enzyme: in oil droplets, 851
— lipolysis, 54
— oil droplets, electron microscopy of, 851
— oil droplets, isolation of, 851
— oil droplets, isolation of, 851
— oil droplets particulate inclusions, 851
— seeds, maturing and developing oil droplets, 851
— seeds, oil droplets and fatty acid synthesis, 851
— specosomes, 851 spherosomes, 851

Catfish, liver, distribution of TPNH-oxidase activity in microsomes, 297 5a-Cholestane-3p-diol, mobility, silica gel-silver nitrate TLC, 836
5a-Cholestane-3p-5-diol, retention index GLC, on OV-1, OV-17, 836
Cholestanol, in brain tissue, 134
— mobility, silica gel-silver nitrate TLC, 836
— retention index GLC, on OV-1, OV-17, 836 Catfish, muscle, distribution of TPNH-oxidase activity in Cattash, muscle, distribution of TPNH-oxidase activity in microsomes, 297 ceramide phosphoryi ethanolamine, metabolism in housefly, microsomal fraction, 508
Ceramides, and biosynthesis of gangliosides, 959
— synthesis by mouse brain particulate fraction, 682
Cerebral cortex, free fatty acids after ischemia, 211
Cerebroside, anal using trinitrobenzene sulfonic acid, 254
— content in human serum, 369
— dtmn by GLC, 433
— hydroxy fatty acids of, rat brain, 458
— in normal and globoid cell leukodystrophy kidneys, 433
Cerebroside sulfate, anal using trinitrobenzene sulfonic retention index GLC, on OV-1, OV-17, 836
7-Cholesten-3β-ol. See lathosterol
4α-methyl-7-Cholesten-3β-ol. See lophenol
Cholesterol, absorption, rat, effect of 2-monoglyceride, 96
— amplified phospholipid thromboplastic activity, 189
assay in rat liver homogenates, 781

autoxidation of, 86
autoxidation of, 86 autoxidation of, 85
auta-, see azasterols, 113
binding to sterol carrier protein, 162
biosynthesis, control of, 219
biosynthesis, in rat liver, 957
biosynthesis in liver, adrenals, ovaries, 693
biosynthesis of sterol carrier protein, 162
column chromatography of, 957
commercial, from bovine brain and spinal cord, 85
content in human serum, 369
content of salmon liver, 347
content of salmon liver, 347
content of various species of orange, 826
content rat serum, liver, 332
conversion to ester in rat ovary, 791
conversion to ester in rat ovary, 793
dietary in rat milk, 645
effect, bload coagulation, 189
effect of anovulatory drugs on, 693
esterification, plasma, in vivo inhibition by oxygen
atmosphere, 740
esterification in plasma, 722 see azasterols, 113 Cerebroside sulfate, anal using trinitrobenzene sulfonic acid, 254

Cetyl alcohol, electrical discharge induced insolubilization, 186 Chain, extension reactions by free radicals, 181 Chain elongation, fatty acid synthesis in dog leukocytes, Chemotaxonamy, lipids, several citrus varieties, 554 Chicken, administration of labeled fatty acid by mouth, 912 912

dystrophy, bioassay of tocopherol, 281

effects of lipids on clotting time of plasma, 139
encephalomaincis, bioassay of tocopherol, 281
liver storage, bioassay of tocopherol, 281
male, fertility relationship to testicular fatty acid profiles, 657
utilization of geometric isomers, 912
Chicken, brain, distribution of TPNH-oxidase activity in microsomes, 297 atmosphere, 740 esterification in plasma, 722 esterification in rabbit and human ovary, 815 esterification in rabbit and human ovary, one GLC anal, 166 in Acanthocephala, 763 in algae, 120 in diet, effect on leukocyte lipid metabolism, in dogs, microsomes, 297
Chicken, epiphyseal cartilage, 22P incorporation into phospholipids, 314 pholipids, 314
— phospholipid metabolism, 314
Chicken, kidney, distribution of TPNH-oxidase activity in in human mucus, 859 microsomes, 297
Chicken, liver, distribution of TPNH-oxidase activity in microsomes, 297
Chicken, muscle, distribution of TPNH-oxidase activity in inferosomes, 297
Chicken, muscle, distribution of TPNH-oxidase activity in inferosomes, 297
Chicken, tessis, cholestanol content, 517
— influence of dietary fat on fatty acid profile, 657
— influence of vitamin E and ethoxyquin on fatty acid in human mucus, 859
in mosquito larvae, 867
in plants, 128
in rat brain, 458
in sea anemone, 341
inhibition of synthesis by serum proteins, 751
inhibition of tetrahymanol synthesis in T. pyriformis,
148 inhibition of tetrahymanol synthesis in T. pyriformis, 149
interference in fatty acid anal, 65
mammary tissue, 645
metabolism in milk, serum, 844
metabolism in mouse, effect of 8U-13,437, 475
metabolism in mouse, effect of 8U-13,437, 475
metabolism in rat brain, 154, 225
milk-fat globule membrane, 645
mobility, silica gel-silver nitrate TLC, 836
non-utilization by D. packer, 166
of mouse liver, effect of 8U-13,437, 475
passage through lactating cell, 645
pig heart mitochondria, 882
precursors, intraperitoneal vs. intracerebral injection, 225
purification by recrystallization, 957
rat liver and plasma content, 47
retention index GLC, on OV-1, OV-17, 836
selective binding in chloroplasts, 215
synthesis, control of, 751
synthesis from glucose in rat brain, 431
turnover time in lactating rat, 645
Cholesterol, human, plasma, genetic variability, 595
Cholesterol, human, plasma, genetic variability, 595
Cholesterol, phospholipid ratios, effect of anovulatory drugs on, 693
Cholesterol-1,2-8H, metabolism in rat ovary, 791
Cholesterol-1,2-8H, metabolism in rat ovary, 791
Cholesterol-1,2-8H, metabolism in rat ovary, 791 profile, 657
Chimyl alcohol, incorporation in glyceryl ethers of alime mold, 470 Chlorella vulgaris, acetate-14C, incorporation in fatty acids of, 266 of, 266
desaturation by cell-free homogenates, 78
fatty acid biosynthesis in, 266
fatty acids, light and dark synthetic reactions, 266
lipids, role in fatty acid desaturation, 266
monogalactosyl diglyceride role in fatty acid desaturation, 266
phosphatidyl choline role in fatty acid desaturation,
266 phosphatidyl glycerol role in fatty acid desaturation, 266 266
— review, polyunsaturated fatty acid metabolism, 266
Chlormadinone acetate, effect on lipid metabolism, 693
Chlorodecane, inhibitor of alcohol debydrogenase, 444
Chloroform, contamination by plasticizers, 523
Chloroplasts, fatty acid biosynthesis in, 266
— sterols, selective extraction of, 215
— sterols in, 215
5α-Cholest-7-en-3β-ol, metabolism in T. pyriformis, 149 5a Cholest-8(14)-en-3β-ol, cholesterol precursor in rat liver, Cholesterol-1,2-3H, metabolism in rat ovary, 791 5a-Cholest-22-en-3 β -ol, metabolism in T. pyriformis, 149 4,4-dimethyl-5a-Cholest-8(14)en-3 β -ol, cholesterol synthesis, Cholesterol-4-4**Coleate, hydrolysis by ovarian tissue, 815
Cholesterol-7a-3**H-palmitate, metabolism in rat ovary, 791
Cholesterol biosynthesis, in human brain and brain tumors, 134
— in rat liver, 134
— pathways in brain, 134
Cholesterolysteria brain, 134 Cholesta-5,7-dien-3 β -ol, synthesis in T. pyriformis, 149 Cholesta-5,22-dien-3 β -ol, synthesis in T. pyriformis, 149 5 α -Cholesta-8,14-dien-3 β -ol, enzymatic formation in rat liver. Cholesta-4,6-dien-3-one, in human serum, identification of, Cholesterol ester, in mosquito larvae, 867 Cholesterol ester hydrolase, in adrenal gland of rats, 797 Cholesterol ester synthesis, in leukocytes from acetate, 4,4-dimethyl-5α-Cholesta-8,14-dien-3β-ol, cholesterol synthe-

Cholesterol ester synthetase, in rat ovary, effect of PGFas Chromatography, column, DEAE-sephadex, corynebacteria lipids, 401 on, 791
radio assay, 791
Cholesterol esterase, cholesterol ester synthetase, gonadotrophins, 791
in rat ovary, effect of PGFsa on, 791
radio assay, 791
Cholesterol esters, content and fatty acid profile in rabbit and human ovaries and sera, 815
content in human serum, 369
content in human serum, 369
content rat serum, liver, 332
depression by PGFsa in ovary, 791
fatty acid profile in pig kidney, 935
gonadotrophins, progesterone, 791
hydrolysis in rabbit and human ovary, 816
in Acanthocephala, 768
in human mucus, 859
in lamb plasma, 26
metabolism in liver of salmon, 347
metabolism in milk, serum, 844
pig heart mitochondria, 882
rat adrenal, dietary fat and fatty acid profile, 797
rat adrenal, dietary fat and fatty acid profile, 797
rat adrenal, stress and selective utilization, 797
Cholesterol synthesis, in leukocytes from acetate, 895
Cholesterol avaitée, in human serum, identification of, 836
in hypercholesterolemia, 836
mobility, silica gel-silver nitrate TLC, 836
retention index GLC, on OV-1, OV-17, 836
serum content, bligh blood pressure, 836
serum content, collagen disease, 836
serum content, in peptic ulcers, 836
Cholesteryl arachidonate, in adrenal gland of rats, 797
Cholesteryl arachidonate, in adrenal gland of rats, 797
Cholesteryl erucate, in adrenal gland of rats, 797
Cholesteryl inoleate, in adrenal gland of rats, 797
Cholesteryl inoleate, in adrenal gland of rats, 797
plasma, in vivo effects of oxygen atmosphere, 740
Cholesteryl inoleate, transesterification of, 919
Cholesteryl oleate, transesterification of, 919 on, 191 radio assay, 791 sterol esterase, cholesterol ester synthetase, gonad-otrophins, 791 341 2.2.7.8-tetramethyl-5-bromomethyl-6-Chromanol, synthesis, 240

2.2.7.8-tetramethyl-5-hydroxymethyl-6-Chromanol, synthesis, 240

Chromatography, column, alumina-Super Cel-silver nitrate of sterols, 967

egg lipids, 912

fatty aldehydes on alumina, as monocarbonyl-2,4-dinitrophenylhydrazones, 361

fungal lipids, 866

housefly lipids, 568

human plasma lipids, 740

kidney cerebrosides, 483

krill, red crab lipids, 481

leukocyte lipids, 895

lipids of Vernix cascoa, 901

milk phospholipids, 844

mitochondrial lipids, 882

neutral and phospholipids, 935

of bacterial lipids, 745

of brain sterols, 225

of diacyl-sn-glycerol enantiomers, 734

of sterols on Sephadex LH-20, 85

of tocopherols, 245, 297

on Forisil, mucus lipids, 869

orange lipids, 826

phospholipids of slime mold, 466

polystyrene gel separation of polar and neutral lipids, 341

purification of monoglyceride, 805

radioactive fatty acid methyl esters, 889

Sephadex, sterol carrier protein, 162

sheep liver lipids, 926

silica gel, corynebacteria lipids, 401

silica gel, sloation of diphosphatidyl glycerol, 260

silica gel, phospholipids of beef heart, 260

silica gel, phospholipids, 768

Chromatography, column, DEAE-cellulose, corynebacteria lipids, 401 trimethylsiple-ther derivatives of nexoses, 455
trout liver fatty acids methyl esters, 426
wheat fatty acids, 768
with liquid scintillation collection, 912
Chromatography, gas-liquid-mass spectrometer, mushroom fatty acids, 176

hiptos, 401
Chromatography, column, Sephadex, of alcohol dehydrogenase, 444
Chromatography, gas-liquid, acetate of glycerol ethers, 341
adrenal fatty acids, 797
aldehydes, 935
alkyl and alkenyl ethers, 466
anal of linoleic acid hydroperoxides, 144
bacterial fatty acids, 820
branched chain fatty acids of corynebacteria, 401
capillary aldehyde esters, 758
chiorides of fatty alcohols, 341
chloroplast sterols, 215
5a-cholestan-35-ol of pigeon testis, 517
cholesterol derivatives, 85
cholesteryl ester fatty acids from ovaries, 815
cis- and trans-epoxytearates, 686 cholesteryl ester fatty acids from ovaries, 815 cis- and trans-epoxystearates, 686 cyclopropenoid fatty acid methyl esters, 426 di-epoxystearates, 686 dolphin diacyl glyceryl ethers, 69 dolphin lipids, 69 dolphin lipids, 69 dolphin lipids, 69 dolphin max esters, 69 dolphin triglycerides, 69 dolphin triglycerides, 69 dolphin wax esters, 69 equivalent chain length data, branched chain, 901 fatty acid from human mucus, 859 fatty acid methyl esters, 341, 919 fatty acid methyl esters from bacteria, 410 fatty acid methyl esters from krill, red crab, 481 fatty acid methyl esters from krill, red crab, 481 fatty acid methyl esters from leukocytes, 395 fatty acid methyl esters, pig triglycerides, phospholipids, 365 lipids, 965
faity acid methyl esters, pig triglycerides, phospholipids, 965
faity acid methyl esters, rat diets, 415
fatty acid methyl esters, rat methyl esters from boil weevil phospholipids, 352
fatty acid methyl esters from boil weevil phospholipids, 352
fatty acids, of mitochondria, 882
fatty acids, of mitochondria, 882
fatty acids of cystacanths, 763
fractionation of triglycerides, 630
glycerides of Glomerella cingulata, 856
hydroxy fatty acids, 745
isopropylidene derivatives of O-alkyl glyceryl ethers, 935
long chain alcohole, 769 isopropylidene derivatives of O-alkyl glyceryl ethers, 935
long chain alcohols, 763
long chain diesters of diols, 641
methyl branched fatty acid positional isomers, 901
microsomal fatty acids, 297
monoenoic fatty acid isomers, 831
mosquito fatty acids, 867
mushroom lipids, 176
of acylated alcohols, 935
of aldehydes, 961
of beef heart diphosphatidyl glycerol fatty acids, 260
of cactus sterols, 166
of diglyceride acetates, 307
of fatty acids from Limnanthes douglasii seed oil, 93
of fatty acids from Limnanthes douglasii seed oil, 93
of fatty acids methyl esters from pig lipids, 935
of glyceryl ethers, 170
of cis-6-bexadecenolc acid, 712
of hornet fatty acids, 850
of "4C-labelled fatty acids, 855
of methyl 12-hydroxystearate, 962
of "4-belled fatty acids, 855
of succeeding the succeeding succeed ucts, 617
polyunsaturated fatty acids, 65
porcine lung surfactant phospholipid comp, 625
products of lipoxygenase, 100
quantitation of radio-labelled diglyceride acetates,
307 radioactive fatty acid methyl esters, 889 radiochromatography, fatty acid methyl esters, 912 rat brain fatty acid methyl esters, 378 rat brain fatty acids, 468 retention index of sterols on OV-1, OV-17, 836 scintillation counting of labeled fatty acid fraction, 758 758
sebacate esters, 523
steroids of cystacanth, 763
sterois of human serum, 836
thermal oxidation products, 758
tocopherol in human plasma, 35
triglycerides containing isovaleric acid, 674
trimethylsilyl derivatives, sterois from orange, 826
trimethylsilyl-ether derivatives of hexoses, 433
troub lives fotte acid, methyl sectors 439

preparative, neutral lipids, 341, 763
preparative of fatty acids, 712
prostaglandin E1, 278
quantitative densitometry, 763, 882
quantitative densitometry of wheat lipids, 768
radio-labelled fatty acids, 307
radio-labelled triglycerides, phospholipids, 326
radioactive fatty acid methyl esters, 889
rat brain gangliosides, 959
rat brain phospholipids, 378, 468
rat liver phospholipids, 377
rat liver phospholipids and neutral lipids, 787
reaction products of asponification, 919
recovery of phospholipids from absorbent, 787
reverse phase, fatty acids, 181
reverse-phase separation of sterols, 154
salmon liver lipids, 347
sebacate esters, 523
separation of citrus lipids, 826
separation of labeled lipids of rat liver cells, 601
sheep liver lipids, 926
silica gel-silver nitrate, unsaturated fatty acids, 889
silica gel-silver nitrate, monoenoic fatty acids, alcohols, 341
silver nitrate, of prostaglandin E1, 278
solvent systems for tocopherol anal. 246 of aldehydes, 961 of aldehydee, 961
aldehyde esters, 758
of branched chain fatty acids, 901
of methyl 12-hydroxystearate, 962
sterols of human serum, 836
Chromatography, gas-liquid-mass spectroscopy, of trimethylsilyl ethers of hydroxylated hydrocarbons, 190
sterols from oranges, 826
Chromatography, gel-filtration, proteins from sarcoplasmic reticulum, 357
Chromatography, gel-permeation, triglycerides containing isovaleric acid, 674
Chromatography, glass paper, of tocopherol metabolites, 318 318 Chromatography, paper, corynebacteria sugars, 401—glass fiber, silica impregnated, of human plasma lipids, 722 impregnated with silica gel, of diphosphatidyl glyc-erol. 260 of ethanolamine, serine, inositol, glycerol, α-glycerol phosphate, 882 of tocopherols, 245 of tocopherols, 245
 porcine lung surfactant phospholipid mild alkaline hydrolysates, 625
 separation of fatty acids, 208
 silica gel impregnated, phospholipids, 314
 silica gel impregnated, plasma phospholipids, 805
 Chromatography, preparative, GLC of hydrocarbons, 190
 Chromatography, adio gas-liquid, radioactive glycerophosphates, 307
 Chromatography
 Senhados
 Chromatography silica gel of boll weevil phospholipids, 352
silver nitrate, of cis and trans monoenoic fatty acids, alcohols, 341
silver nitrate, of cis and trans monoenoic fatty acids, alcohols, 341
silver nitrate, of prostaglandin E1, 278
solvent systems for toeopherol anal, 245
sterols of human serum, 386
sterols on silica gel-silver nitrate, 517
sulfolipids, 40
triglycerides containing isovaleric acid, 674
unsaturated fatty acids, 712
Chromatography, thin-layer, silver-nitrate, unsaturated fatty acids, 307
Chylomicrons, pig serum triglycerides, structure fatty acid profile, 965
Cirrhosis, LCAT activity in, 369
serum lipoproteins and cholesterol esters in, 369
Citrus, glycolipid fatty acid profiles, 554
lipid chemotaxonomy, 554
sterol ester, staty acid profiles, 554
sterol esters, fatty acid profiles, 564
citrus sinensis, sterol content, 826
a-terol esters, fatty acid profiles, 564
citrus inensis, sterol content, 826
a-cleavage, diol lipids, 727
Clofbrate, effect on lipid synthesis, rat liver cells, 609
Co A. See coenzyme A
Coagulation, blood, 139
Coconut oil, fatty acid profile, 415
hydrogenated, effect on adrenal cholesterol esters, rat, 797
hydrogenated, effect on fatty acid profile, 797
hydrogenated, metabolism of fatty acids in rata, 388 silica gel impregnated, plasma phospholipids, 805
Chromatography, preparative, GLC of hydrocarbons, 190
Chromatography, Sephadex, fungal triglycerides, 856
— proteins from sarcoplasmic reticulum, 357
Chromatography, thin-layer, acetolysis products from porcine lung surfactant phospholipids, 625
— adrenal lipids, 797
— aldehydes, 470
— alk-i-enyl and alkyl glycerolipids of alime mold, 470
alk-i-enyl and alkyl glycerolipids of alime mold, 470
argentation, maize triglycerides, 525, 537
— argentation, maize triglycerides, 525, 537
— argentation, of wheat fatty acids, 768
— bacterial lipids, 745
— brain, free fatty acids, 211
— cholesterol, cholesteryl esters, free fatty acids, from ovaries, 815
— corynebacterial phospholipids, 401
— DNP derivatives of amino acids from proteins of sarcoplasmic reticulum, 357
— 2,4-dnp derivatives of unsaturated aldehydes, 351
— dolphin diacyl glyceryl ethers, 69
— dolphin lipids, 69
— dolphin lipids, 69
— dolphin triglycerides, 69
— dolphin triglycerides, 856
— glycolipids from oranges, 826
— hornet lipids, 850
— housefly lipids, 508
— human plasma lipids, 722
— in anal of aphingolipids, 254
— krill, red crab lipids, 481
— labeled fatty acids, 912
— leukocyte lipids, 895
— lipids of Vernix caseosa, 901
— liver neutral lipids, 203
— maize triglycerides, 525
— milk phospholipids, 687
— mushroom lipids, 178
— neutral lipids from pig heart, spleen and brain, 985
— of aldehydes, 961
— of splactoryl diglycerides, 768
— of glyceryl ether, 985
— of phospholipids of milk, 844
— of tocopherols, 245
— of tritium labeled sterols, 233
— of wheat lipids, 763
— of splactoryl tipids, 763
— of splactoryl tipids, 763
— of phospholipids and nonpolar lipids, of mitochondria, 852
— phospholipids from pig heart, spleen and brain, 985
— phospholipids from pig heart, spleen and brain, 985
— phospholipids from pig heart, spleen and brain, 985
— phospholipids from pig heart, spleen and brain, 985
— phospholipids of bacteria, 410
— phospholipids of bacteria, 410
— phospholipids of bacteria, 410
— phospholipid hydrogenated, effect on adrenal cholesterol esters, rat, 797
hydrogenated, fatty acid profile, 797
hydrogenated, metabolism of fatty acids in rats, 388
induction of mammary tumor in rats, 415
tocopherol content, 291
Coconut oil, hydrogenated, arteriosclerosis-inducing diet, dog leukocyte lipids, 895
Cod liver, pristane content of oil, 520
Cod liver oil, diet effect in tocopherol deficient rats, 297
Coenzymes Q, as biological antioxidants, 147
pig heart mitochondria, 882
ratio to fatty acids in membranes, 147
Cold accilmation, and adipose tissue cell size, 486
relation to norepinephrine induced increase in oxygen consumption, 486
Collagen disease, cholesterol a-oxide in serum, 836
Contamination, of chloroform by sebacate esters, 523
Coxidation, of alkyl and cyclic hydrocarbons by microorganisms, 463
Coprostanol, in human serum, identification of, 836
mass spectra, 886
mobility, silica gel-silver nitrate TLC, 886
retention index GLC, on OV-1, OV-17, 836
Coprostanone, mobility, silica gel-silver nitrate TLC, 836
retention index GLC, on OV-1, OV-17, 836
Corn. See maize
tocopherol content of seeds, 291
Corn iil, diet of rat effect on adrenal chalesterol estern — tocopherol content of seeds, 291 Corn oil, diet of rat effect on adrenal cholesterol esters, 797

fatty acid profile, 415, 797

induction of mammary tumor in rats, 415

positional fatty acid profile, 942

saponification of, methanolic sodium hydroxide, 919

tocopherol content, 291

Corn oil, diet, effect on mammary cancer in rats, 415

Corona discharge, reactions at lipid-gas interfaces, 186

Corpus luteum, in rat ovary, cholesterol ester metabolism, effect of PGFsc, 791

Corticosterone, rat plasma, effect of cold stress and dietary fat, 797

Corynebacteris, lipids, chromatography of, 401

mannophosphoinositides and phospholipid profile, 401 phospholipids from human mucus, 589 phospholipids from pig heart, spleen and brain, 985 phospholipids of bacteria, 410 phospholipids of cystacanth, 763 porcine lung surfactant phospholipids, 625 preparative, cyanolipid, 349 preparative, mosquito lipids, 867

Corynebacterium diphtheriae, fatty acid profile, 401
— phospholipid content, 401
Corynebacterium equi, fatty acid profile, 401
— phospholipid content, 401
Corynebacterium ovis, fatty acid profile, 401
— mannophosphoinositide content, 401
Corynebacterium xerosis, phospholipid content, 401
Cottonseed eil, fatty acid profile, 415
— induction of mammary tumor in rats, 415
— tocopherol content, 291
Counter-current distribution, separation of phospholipid positional isomers, 355
Cow, secretion in milk, bioassay of tocopherol, 281
Crah, red, fatty acid profile of various lipid classes, 481
— lipid comp, 481
Crayfish, pristane content of oil, 520
Craem, phospholipids of, 844
Crealus adamanteus, venom hydrolysis of phospholipids by, 352
Crealus adamanteus venom, hydrolysis of liver phospholipids, 203

injids, 203
maldehyde, in cucumbers, synthesis from unsaturated fatty acids, 351

fatty acids, 351

— reaction with bovine serum albumin, 172

Crystal structure, esters of long chain alcohols with fatty acids, 421

Cucumber, aldehydes, synthesis of, 351

— fatty acids, fatty aldehydes comp, 251

— homogenates, incubated with radio-labelled fatty acids, 351

acids. 351

acids, 351

— lipoxidase, 351

— tocopherol content, 291

Culex pipiens fatigens, lipid comp, 867

Culture media, for growth of D. pachea, 166

1-Cyano-2-hydroxymethylprop-2-ene-1-ol, in Kusum oil, 349

Cyanolipids, in Kusum seed oil, 349

Cyclic AMP, effect on hydrolysis of cholesterol esters, 815

— effect on lipolysis, 274

Cyclic 5-methylenoxy-2,2,7,8-tetramethyl-6-chromanol phosphate, 240

Cycloartenol, in chloroplasts, 215

— role in steroid biosynthesis, 219

Cyclohexane, microbial oxidation, 453

— enzymatic hydroxylation, Pseudomonas aeruginosa, 437

487

Cyclohexanol, as substrate for alcohol dehydrogenase, 444 Cyclopropenoid ring, formation, 623 Cymenes, enzymatic hydroxylation, 437 Cystacanths, of Polymorphus minutus, lipid comp, 763 Cytosine triphosphate, effect microsomal desaturation reaction, 873

Deacylation, by Grignard reagent, 942
— of phospholipids by microsomes, 508
Dealkylation, of sterols in T. pyriformis, 149
2,4-Decadienal, in cucumbers, synthesis from unsaturated fatty acids, 351
1-10-Decanediol, as substrate for alcohol dehydrogenase, 444 didocosanoate ester, synthesis, 641
occurrence in wheat wax, 641
l-Decanol, as substrate for alcohol dehydrogenase, 444
2-Decanol, as substrate for alcohol dehydrogenase, 444
2-Decanol, as substrate for alcohol dehydrogenase, 444
2-Decanone, thermal oxidation product of methyl oleate, 750

2-Decanone, thermal oxidation product of methyl oleate,
9-Decanone, thermal oxidation product of methyl oleate,
9-Decene-1-ol, as substrate for alcohol dehydrogenase, 444
7-Dehydrocholesterol, column chromatography of, 967
— GLC anni, 166
— synthesis of 3H-labeled compound, 283
Dehydrogenation, of sterols in T. pyriformis, 149
Delphinapterus leucas, fatty acid and triglyceride profiles of blubber and melon oils of the beluga whale, 674
Densitometry, after TLC of lipids, 768
Density gradient centrifugation, isolation of sarcoplasmic reticulum, 357
Deoxycholic.acid, use in assay of lipases, 805
Deoxyribonucleic acid, in dog leukocytes, 895
Depancreatized dog, fatty liver and lipid mobilization, 394
Depot fats, animal, fatty acid profile, 942
Desaturation, assay by tritium release, 78
— effect of chain length in human liver, 576
— hen liver cell-free homogenate, 78
— inhibition by sterculic acid in Chlorella vulgaris, 266
— of fatty acids, assay of, 78
— of fatty acids, mechanism of, 78
— of fatty acids, mechanism of, 78
— of fatty acids, mechanism of, 78
— of stearic acid in plants, 266
— of stearic acid in plants, 266
— of tearic acid in plants, 266
— of tearic acid in plants, 267
— tritium isotope effect on, 78
Desaturation, acyl, by microsomes from several rat tissues, 567

effect of age on rate, 567

effect of ATP preincubatoin on rate, 567

in vivo and in vitro modifiers of, 567

of several saturated and unsaturated fatty acids, 667

proposed mechanism, 567

relationship of Δ⁵ and Δ⁶ desaturation reactions, 567

4-Deamethyl sterols, formation in rat brain, 225

Desmosterol, mobility, silica gel-silver nitrate TLC, 836
Deuterium, labeling of lipids for mass spectrometry, 727

Diabetes, in rat, phospholipid synthesis, 203

Ilinoleic and arachidonic acids incorporation, 203

1.2-Dialkoxy-ethanes, diol ethers, 727

1.2-Dialkoxy-propanes, diol ethers, 727

1.3-Dialkoxy-propanes, diol ethers, 727

Diabyl ethers, of diols, mass spectra, 727

Diabyl ethers, of diols, mass spectra, 727

Diabyl ethers, of diols, mass spectra, 727

Diabylsis 274

Diesters, diol in wheat wax, 641

Diet, fate-nriched and mammary cancer, 415

fatty acid supplement, rat, 797

low fat, newborn lamb, 26

manipulation and phosphatidic acid synthesis by liver microsomes, 88

rat, fatty acid supplement, 797

Diet, corn oil, effect on mammary cancer in rats, 415

Diet, rat, cholesterol, cholic acid, lard, linoleate, γ-linolente, supplement, 47

corn oil supplements, comp of, 415

Di(2-ethyl hexyl) sebacate, chloroform contaminant, 523

Digalactoxyl diglycerides, wheat, stereoanalysis of fatty acids, 768

Diglycerides, in human mucus, 859

in stereospecific anal of triglycerides, 942

metabolism in milk, serum, 844

prep of, from triglycerides, 942

metabolism in stereospecific anal of triglycerides, 942

metabolism in stereospecific and friglycerides, 942

linoleic acid incorporation, liver, EFA deficient rat, 858

Liver, linoleic and arachidonic acids incorporation, 203

liver, linoleie and arachidonic acids incorporation, 2.3-Diglycerides, in stereospecific anal of triglycerides, 942
Dihydrolanosterol, mobility, silica gel-silver nitrate TLC,
836

836
— retention index GLC, on OV-1, OV-17, 836
3-keto-Dihydrosphingosine, synthesis by mouse brain particulate fraction, 682
Dihydroxyacetone, metabolism in rat liver microsomes, 990

Dihydroxyacetone phosphate, as precursor for phosphatidic acid synthesis, 88
— metabolism in rat liver microsomes, 930
10.12-Dihydroxyoctadecanole acid, prep from ricinoleic acid, 745
9,10-Dihydroxystearic acid, methyl ester, mass spectra, acid.

906
Dilodosterculate, formation, physical characterization, 623
Dilsopropylsuorophosphate (DFP), effect on microsomal acyl CoA metabolism, 107
Dimannophosphoinositides, in corynebacteria, 401
2,2-Dimethoxypropane, transesterification of fatty acid esters, 919
Dimethyl sebacate, chloroform contaminant, 523
4,4-Dimethyl sterols, formation in rat brain, 225
p-Dimethyl-3-hydroxy-dodecanedioate, specific rotation, mass spectra, 746

spectra, 745 5,7-Dimethyltocol, internal standard, tocopherol determination, 3

mination, 35
2,5-Dimethylnaphthalene, microbial oxidation, 458
Biol lipids, mass spectra of homologous series, 492
Diphosphatidyl glycerol, acetone precipitation, 260
activity in syphilis diagnostic test, 260
beef heart, ester groups and fatty acids, 260
column chromatography of, from beef heart, 260
comparison of isolation methods, 260
impurities in commercial preparations, 260
in Humicola grisea var. thermoidea, 589
phosphorus, glycerol, fatty acid content, 260
See cardiolipin
solvent fractionation, 260

— See cardiolipin
— solvent fractionation, 260
Dithiothreitel, role in triglyceride synthesis, 326
2DL-a-tocopherol. See a-tocopherol
DNA. See deoxyribonucleic acid
3-4C-Docosa-7,10,13,16-tetraenoic acid, methyl ester, GLC,

synthesis of, specific activity, 889 3-14C-Docosanoic acid, methyl ester, GLC, 889 Docosapentaenoic acid, rat testis, synthesis from acetate, Docosatetraenoic acid, rat testis, synthesis from acetate,

2-Docosenoic acid, trans, in wax diesters, 641

— trans, methyl ester, synthesis, 641
Docosyl octadecanoate, crystal structure, 421
1,12-Dodecanodiol, occurrence in wheat wax, 641
Dodecanol, as substrate for alcohol dehydrogenase, 444
Dog, phospholipid transport in, 394
Dog, leukocytes, lipid metabolism, arteriosclerosis-inducing Dog, liver, lipid content, 394

— phospholipid content, 394

Dog, plasma, phospholipid exchange, liver, 394

Dog, plasma, phospholipid exchange, liver, 394

Dog, serum, cholestanol content, 517

Dolphin (Inia geoffrensis), lipids of, from blubber and jaw fats, 69

Drosophila pachea, axenic culture, 166

— culture media for growth, 165

— lathosterol metabolism in, 186

— non-utilization of cholesterol by, 166

— requirement for schottenol, 166

— sterol biosynthesis, 166

— sterol extraction, 166 diet. 895

EC 1.13.1.13. See lipoxidase
EC 2.3.1.15. See acyl transferase
EC 2.7.1.31. See lipase
EC 3.1.1.3. See lipase
EC 3.1.2.2. See cholesterol esterase
EC 3.1.2.2. See cholesterol esterase
EC 3.1.2.3. See pancreatic lipase
EC 3.1.2.4. See La phosphatidate phosphohydrolase
EC 3.1.2.4. See La phosphatidate phosphohydrolase
EC 6.2.1.3. See acyl coenzyme A synthetase
Ediol, as substrate for lipases, 805
EFA. See fatty acids, essential
Egg, lipids, neutral, fatty acid comp, 912
— lipids, phosphatidyl choline, fatty acid comp, 912
— of mosquito, lipid comp, 867
Eicosanoic acid, esters with long chain alcohol, infrared spectra melting point, 421
8,11,14-Eicosatrienoic acid, major component of swine adrenal cholesterol ester, 624
— synthesis from linoleate in rat, 47
cis-11,14,17-Eicosatrienoic acid, in rat tissues, 831
Eicosyl eicosanoate, crystal structure, 421
Eicosyl eicosanoate, crystal structure, 421
Eicosyl ectadecanoate, crystal structure, 421
Eicosyl ectadecanoate, crystal structure, 421
Eicosyl ettradecanoate, 42
Eicosyl ettradecano - resting, ossifying, new bone, 314

Epoxidation, geometric octadecadienoate isomers, 686 geometric octadecenoate isomers, 686

Epoxides, cleavage with periodic acid, 961

formation by perlauric agent, 961

Epoxy fatty acids. See fatty acids, epoxy cis-13,14-Epoxydocosanoic acid, methyl ester, structure dtmn, 961 cis-9,10-Epoxyoctadecanoic acid, biosynthesis by rust in-fected wheat, 581 — mass spectra of ¹⁸O containing, 581 cis- and trans-9,10-Epoxyoctadecanoic acid, methyl ester, structure dtmn, 961 cis-9,10-Epoxystearic acid, in seed oils, 617 7-Ergostenol, GLC anal, 166 Ergosterol, in algae, 120 Erratum, 692, 863 LIPIDS, VOL. 6, NO. 12

Erucic acid, cholesterol ester, deposition in rat adrenal, Erucic acid, cholesterol ester, deposition in rat adrenal, 797

- cholesterol ester, stress and utilization in rat adrenal, 797

- cholesterol ester, stress and utilization in rat adrenal, 797

- effect of mammary tumor in rat, 415

Erythrocyte, ghosts, effect on cholesterol synthesis in rat liver homogenates, 751

Erythrocyte count, in rats fed SU-13,437, 783

Erythrocyte, anal of tocopherol in, 246

- hemolysis bioassay of vitamin E, 281

Erythrocytes, human, cholestanol content, 517

- lipids, genetic variability, 595

Erythrocytes, rat, hemolysis assay of tocopherol, 297

- indicators of free radical formation in tocopherol metabolism, 297

- inhibition of peroxide hemolysis by tocopherol, 297

- inhibition of peroxide hemolysis by tocopherol, 297

- Erythropoiesis, suppression by oxygen atmosphere, 740

ESR. See spectra, electron spin resonance

Essential fatty acids, cholesterol esters, dietary fat and content in rat adrenal, 797

- cholesterol esters, stress and utilization in rat adrenal, 797

Ester. See fatty acid, methyl ester or specific fatty acid Estrogens, in plants, 128

Ethanol, as substrate for alcohol dehydrogenase, 444

- in cucumber, synthesis from unsaturated fatty acids, 351

Ethanolamine, role in autoxidation of methyl linoleate S51
Ethanolamine, role in autoxidation of methyl linoleate emulsions, 196
Ethanolamine phosphoglycerides, fatty acid metabolism, EFA deficiency, 378
Ethanolamine-sphingolipid, of mosquito, 867
Ethinyl estradiol, effect on lipid metabolism, 693
Ethinine, fatty liver, 394
— induced fatty liver, 394
— lipid mobilization during recovery, 394
— phospholipid synthesis, 394
Ethoxyquin, chicken, fertility, testicular fatty acid profile, 657
9-Ethoxy-a-tocopherone, oxidation product of a-tocopherol, 9-Ethoxy-a-tocopherene, oxidation product of a-tocopherol, Ethylbenzene, microbial oxidation, 453
Ethyl erucate, diet of rat effect on adrenal cholesterol esters, 797
Ethyl linoleate, cholesterol absorption, rat, 964
Ethyl oleate, cholesterol, content of various species of oranges, 826
Ethynodiol diacetate, effect on lipid metabolism, 693
Euphausia species, lipid comp, 481
Extraction of lipids, from D. pachea, 166 240

Fat, digestability in rats fed fat supplemented diets, 415

— See also adipose tissue
— See also lipid
Fat, body, of oriental hornet, comp, 850
Fat cell lipolysis, reesterification and cold exposure, 274
Fat free diet, effect on monoenoic fatty acid is page 74
Fats, positional distribution of fatty acids in, 942
Fatty acid profile, beef heart diphosphatidyl glycerol, 260
beluga whale (Delphinapterus leucas) blubber and melon oils, 674
blubber fat triglycerides, 69
boll weevil lipid, 352
bovine thyroid phospholipids, 661
cholesterol esters, rabbit ovary, 815
cholesterol esters, rabbit serum, 316
coconut oil, hydrogenated, 797
corn oil, 797
diacyl glyceryl ethers, dolphin, 69
diglycerides, triglycerides in wheat flour, 768
fungal triglycerides, phospholipids, 856
hepatic, in propionicacidaemia, 576
human depot fat, 212
human triglycerides, heart, liver, adipose tissue, 854
in bacteria, effects of growth media and temp, 820
in maize triglycerides, 531
in mosquito larvae, 867
in phospholipids, triglycerides, free fatty acids, of mitochondria, 882
Inia geoffrensis lipids, 69
isw fat lipids, 69
isw fat lipids, 481
Kusum seed oil, 349
Limanthes douglasii seed oil triglycerides, 93
Linum mucronatum, 962
liver lecithin, in, propionicacidaemia, 576
iliver triglycerides in propionicacidaemia, 576
of butter, 415
of coconut oil, 415

XUI

of ones oil 415	- esterification to cholesterol by ovarian tissue, 815
of corn oil, 415 of corynebacteria, 401	esters, with long chain alcohols, infrared spectra.
of cottonseed oil, 415	melting points, 421
of dolphin lipids, 69	fluoroethyl esters, hydrolysis rate by pancreatic
of human and rabbit ovaries, 815	lipase, 942
of human mucus cholesterol esters, 859 of human mucus free fatty acids, 859	trans-3, from Stenachaenium macrocephalum seed oil,
of human mucus phosphatidyl choline, 859	NMR spectra, 617 GLC of branched chain, from bacteria, 820
of human mucus phosphatidyl choline, 859 of human mucus triglycerides, 859	glycerides, during fungal growth, 856
of individual lipids, Citrus varieties, 554	cis-6-hexadecenoic acid in oil seeds, 712
of lard, 415 of leukocyte phospholipids, neutral lipids, 895	- hydratase, substrate specificity, 541
of liver, 388	in human depot fat, 212
of lyso-bis-phosphatidic acid from porcine lung sur-	- in maize triglyceride species, distribution, 537
factant, 625	- in palm-kernel triglycerides, 630
of mushrooms, 176	in plasma of newborn lamb, 26
of mycelia, 176 of olive oil, 415	— in triglycerides, general distribution rules, 942 — in triglycerides, positional distribution in depot fat,
of phosphatidyl choline from porcine lung surfac-	942
tant, 625	- in triglycerides, positional distribution in milk fat,
- of phosphatidyl ethanolamine from porcine lung	942
surfactant, 625 — of phosphatidyl glycerol from porcine lung surfac-	 in triglycerides, positional distribution in plants, 942 incorporation in phospholipids of slime mold, 470
tanct, 625	incorporation in triglycerides by mammary tissue,
tanct, 625 of Polymorphus minutus, 768	326
of rainbow trout, 426	incorporation into 1,2-diacyl glycerol of rat liver, 787
of rapeseed oil, 415	incorporation into phospholipids of rat liver, 787
of soybean oil, 415 of sporophores, 176	incorporation of acetate, malonyl CoA into castor bean, 851
of sunflower oil, 415	inhibition of lipolysis by, 274
of tallow, 415 olive oil, 797	trans isomers in sea anemone, 841
	trans isomers in sea anemone, 341 isotope discrimination, ³ H to ¹⁴ C, in plants, 266
oriental hornet larvae, 850	labeled with deuterium, metabolism in chickens, 912 mass spectra of branched chain, 901
pig, serum, adipose tissue, triglycerides, phospholipids, 965	mechanism of stereospecific hydration by bacteria,
pig kidney, 935	745
pig kidney, 935 rat adrenal cholesterol esters, 797	metabolism in Vernix caseosa, 901
rat brain myelin lipid classes, 458	metabolism of cyclopropenoid, in trout, 426 metabolism of geometric isomers in chickens, 912
rat liver phospholipids, 649 red crab, neutral lipids, phospholipids, 481	methyl branched positional isomers, 901
red crab lipids, 481	methyl ester prep, 919
sarcoplasmic reticulum, 357	methyl ester prep, 919 methyl esters, field ionization, mass spectra, 906
sea anemone, 341	methyl esters, oxidation with perlauric acid, 961 mono- and di- hydroxy, prep and physical properties,
— Stenachaenium macrocephalum seed oil, 617 — Thunbergia alata seed oil, 712	745
tobacco tissue culture and seedlings, 684	monoene, epoxidation, cis-trans anal, 686
triglycerides, dolphin, 69	monoenoic, isomers in rat tissues, 831
wax esters, dolphin, 69	monoenoic desaturation in plants, 266
wheat flour, 768	 mono-methyl branched chain in Vernix casebsa, 901 odd numbered in propionicacidaemia, 576
Fatty acid synthetase, in oil droplets of castor bean, 851	of brain, phospholipids in EFA deficiency, 378
Fatty acids, acceptors, albumin and calcium in post-	- of cholesterol esters, effect of anovulatory drugs on,
neparin plasma, 805	693
aerobic synthesis in plants, 266	of hornet triglycerides, 850
anaerobic synthesis in plants, 266	of human serum cholesterol esters, 369 of mouse liver, effect of SU-13,437, 475
anal, cholesterol interference in, 65 biosynthesis, effect of SU-18,437, 475	of phospholipids, effect of anovulatory drugs on, 693
biosynthesis, in rat testes, 706	optical activity of cis-9-hydroxy compounds, 745
biosynthesis in Chlorella vulgaris, a review 266	ozonolysis of seed oils, 706 phospholipid during fungal growth, 856
bound to albumin, inhibition of lipolysis, 274 branched chain in Vernix caseoea, 901	polymers formed by corona discharge, solubility in
	organic solvents, 186
changes in brain, EFA deficiency, 378	positional distribution, 942
chlorobenzyl ester, hydrolysis rate by pancreatic	positional distribution, in maize triglycerides, 581
lipase, 942	 positional distribution, of fatty acids in maize tri- glyceride species, 587
cholesterol esters, rat adrenal, dietary fat and comp,	positional distribution in maize triglycerides, 525
cholesterol esters, rat adrenal, stress and comp. 797	— positional distribution in phosphatidyl choline of boll
cis, anal of by epoxidation and GLC, 686	weevil, 352
comp of dietary lats and oils, 415	 positional distribution of, in mosquito, 867 positional distribution in phosphatidyl ethanolamine
competitive inhibition by during glyceride synthesis,	of boll weevil, 352
- concentration, effect on fatty acid placement in tri-	positional specificity, in triglycerides, 531
glycerides, 531	- positional specificity, triglycerides, phosphatidyl eth-
content, during fungal growth, 856	anolamine and phosphatidyl choline in pig kidney, 935
 conversion of linoleic acid to γ-linolenic acid, 873 cross-linking of by electrical discharges, 186 	positionally restricted random distribution in triglyc-
crystal structures, as esters with long chain alcohols,	erides, 942
421	prep of methyl esters, 820, 919
- desaturation by anaerobic bacteria, 745	profile of neutral and polar lipids, mesophilic and thermophilic fungi, 584
desaturation in plants, 266 desaturation of by liver microsomes, 873	— profile of phospholipids in sheep liver, 926
diene, epoxidation, geometric isomer anal, 686	rat, isomers, positional, monoenoic, 881
dienoic, biosynthesis by two pathways in Chlorella	reaction with free radicals formed by corona dis-
vulgaris, 266	charge, 186 — released by lipase from serum lipoproteins, 276
di-methyl branched chain in Vernix caseosa, 901	- role of glycolipids in desaturation of, 266
- distribution, in positions 1, 2 and 8 in maize triglyc-	role of phospholipids in desaturation of, 266
erides, 525 — effect of ATP on desaturase of liver microsomes, 873	 saturated, changes in brain, EFA deficiency, 378 saturated, desaturation of, 78
epoxy, from rust infected wheat, 581	saturated, desaturation of, 78 serum, incorporation into milk lipids, 844
essential, deficiency and sarcotubular membrane	specificity of desaturate reaction, double bond posi-
function, 357	tion 266
esterification, specificity, bovine mammary gland,	- stereospecific anal, of maize triglyceride species, 537 - stereospecific anal in metabolic studies, 942
777	synthesis, testis, in vitro, 706
esterification in bovine mammary tissue, 326	•
	LIPIDS, VOL. 6, NO. 12

synthesis, testis, in vivo, 706
synthesis from 1-34C-acetate, chain elongation vs. de
novo, WBC, 895
synthesis from acetate-14C in plants, 266
synthesis in dog leukocytes from 1-34C-acetate, EFA
deficient diet, 895
synthesis in oil droplets of castor bean, 851 terminal chain elongation, 181 trans, anal of by epoxidation and GLC, 686 transport of triglycerides in EFA deficiency, triglyceride synthesis in mammary tissue, 326 tritiated, non-incorporation into plant lipids, 266 tritiated, non-incorporation into plant lipids, 266
unsaturated, formation of, 78
unsaturated in mitochondrial membranes, 147
wheat glycerolipids, 768
Fatty acids, branched chain, in bacteria, 820
in corynebacteria, 401
shorthand notation, 862
Fatty acids, cyclopropenoids, accumulation in tissues of trout, 426
hydrogenation of, 426 trout, 426

hydrogenation of, 426

in depot fat of trout, 426

microassay method, 426

random-nonrandom theory of triglycerides, 525

Fatty acids, epoxy, biosynthesis by rust infected wheat, 581 Stenachaenium macrocephalum seed oil, NMR spectra, Stenachaenium macrocephalum seed oil, NMR spectra, 617
Fatty acids, essential, arteriosclerosis-inducing diet, dogs, leukocyte lipid synthesis, 895
deficiency, effect on brain ethanolamine phosphoglyceride, 378
deficiency, effect on brain myelin, 378
deficiency, linoleic acid incorporation, 858
deficiency, monoenoic isomers, rat, 831
deficiency, recovery, triene, tetraene ratio, 378
deficiency and triglyceride transport, 388
deficiency and triglyceride transport, 388
deficient rat, linoleic acid incorporation, 858
Fatty acids, free, brain, ischemia increased production, 211
brain, squirrel monkey, 211
content in human serum, 369
effect on lipolysis, 274
formation from glucose in rat, 332
in cystacanths, 763
in human mucus, 859
in krill and red crabs, 481
in oriental hornet larvae, 850
in rat serum, 332
level of in Kwashinkur and normal children, 268 in oriental hornet larvae, 850
in rat serum, 332
levels of in Kwashiorkor and normal children, 208
metabolism in milk, serum, 844
not desaturated by chloroplasts, 266
pig heart mitochondria, 882
release from adipose tissue, 394
synthesis in rat testis, 706
tissue conc in bovine mammary gland, 777
white and grey matter, monkey, 211
Fatty acids, hydroxy, from Stenachaenium macrocephalum
seed oil, NMR spectra, 617
in lipids of Linum mucronatum, 962
methyl esters, field ionization mass spectra, 906
Fatty acids, polyunsaturated, changes in brain, EFA deficiency, 378
cholesterol contamination, 65 ficiency, 378 cholesterol contamination, 65 distribution in triglycerides, 942 effect of diet on perceidation by TPNH-oxidase, 297 in cholesterol esters of rat adrenal gland, 797 in phospholipids of sheep liver, 926 metabolism in brain EFA deficiency, 378 peroxidation by TPNH-oxidase, 297 peroxidation of, in microsomal membrane phospholipids, 297 plasma, peroxidation, 740
triene/tetraene ratio in lamb plasma, 26
Fatty acids, unsaturated, 17-carbon in propionicacidaemia, 576 Fatty acids, unsaturated, 17-carbon in propionicacidaemia, 576

changes in brain, EFA deficiency, 378
desaturation, effect of ATP, 873
double bond pattern of monoenes, rat tissues, 831
geometric isomers, 912
in cholesterol esters of rat adrenal gland, 797
in swine adrenal cholesteryl esters, 624
metabolism in cucumber, 351
metabolism in rat liver, 367
metabolism in rat liver, 807
periodate-permanganate oxidation, 831
stereospecific hydration by bacteria, 745
synthesis of 1-21°C, 3-1°C, 859
use in synthesis of diacyl-sn-glycerol, 734
Fatty acids, unsaturated, poly, a review of blosynthesis in plants, 266
peroxidation in rat, 715
Fatty alcohols, esters, with long chain fatty acids, infrared spectra, 421
Fatty alcohols, acetates, chromatographic properties, 341
Fatty alcehols, acetates, chromatographic properties, 341
Fatty aldehyde profile, slime mold plasmalogens, 466

Fatty aldehydes, chain comp of phosphatidyl ethanolamine in pig kidney, 935

— comp in eucumber, 351

— profile from rat brain, 170

Fatty liver, in EFA deficiency, 388

— lipid mobilization in, 394

Fees, chicken, recovery of label in, after feed labeled fatty acids, 912

Fattility, male chicken, affact of vicania E and otherwards. Feces, chicken, recovery of label in, after feed labeled fatty acids, 912
Fertility, male chicken, effect of vitamin E and ethoxyquin, 657
relation to testicular fatty acids of chicken, 657
Fetal resorption, bioassay of vitamin E, 281
FFA. See fatty acids, free; i.e., non-esterified
Fibroadenoms, induced, rat mammary gland, 415
Field ionization, mass spectrometry of methyl esters of fatty acids, 906
Fish, oils, hydrocarbons in, marine and freshwater species, 520
sterol biosynthesis in, 219
turnover of oleic acid in, 562
Fish, Gourami (Trichogaster cosby), incorporation of U
"C oleic acid into wax esters and triglycerides, 562
U-¹⁴C oleic acid into wax esters and triglycerides, 562
triglyceride metabolism, half-life, 562
wax ester metabolism, half-life, 562
wax esters of roe, 562
Fish, wax fatty acids, 562
wax fatty acids, 562
Flour, wheat, lipid anal of, 768
Fluorescence, measurement of lipid peroxidation, 715
of albumin modified by peroxidizing lipids, 172
Fluorodecame, inhibitor of alcohol dehydrogenase, 444
Free fatty acids, in lamb plasma, 26
Free radicals, apparatus for reaction of, with fatty acids, 181
chain extension reactions, 181
chain extension restractival lead chain extension reactions, 181 formation from tetracthyl lead, di-t-butyl peroxide, formation from tetracthyl lead, di-f-butyl peroxide, 181

formed by lipid peroxidation, 715

formed in corona discharge reaction with fatty acids, 186

lipid-protein oxidation, EPE spectrometry, 62

metabolism of a-tocopherol, 297

Fruit. See oil, seeds; oilseeds, or specific name

tocopherol content, 291

Fucosterol, in algae, 120

synthesis of *H-labeled compound, 233

Fungi, mesophilic, fatty acid profile, 584

unsaturation index, polar and neutral lipids, 584

Fungi, thermophilic, fatty acid profile, 584

lipid comp of Humicola grisea var. thermoidea, 589

polar and neutral lipids, 584

unsaturation index, polar and neutral lipids, 584

Fungu, thermophilic, fatty acid profile, 584

unsaturation index, polar and neutral lipids, 584

Fungus, lipid comp, 856 181

Galactocerebrosids, in kidney, 433
Galactocerebroside \$\textit{B}_{\text{-galactosidase}}\$, genetic deficiency in globoid cell leukodystrophy, 453
Galactosylceramide galactosyl hydrolase, see galactocerebroside \$\textit{B}_{\text{-galactosidase}}\$, 435
Gangliosides, anal using trinitrobenzene sulfonic acid, 254
biosynthetic pathways in rat brain, 959
incorporation of \$N_{\text{-act}}\$^{1/2}\$-C-mannosamine into, 959
labeling in vivo in rat brain, 959
metabolism in rat brain, 959
Genetics, human, effects on plasma and erythrocyte lipids, 595 595
Geotrichum candidum, lipase from, use stereospecific anal of triglycerides, 942
Geraniol, in sterol metabolism, 219
Gibberelit acid, effect on acid lipase of castor bean, 54
GLC. See chromatography, gas-liquid
Glioblastoma, cholesterol synthesis, 134
Globoid cell leukodystrophy, content of kidney cerebrosides, ulopoid ceil leukodystrophy, content of kidney cerebrosides, 433
Glomerella cingulata, lipid comp, 856
Glucoerebroside, in kidney, 433
Glucose, conversion to lipid in rat liver, 332
— effect of ethionine on, in dog blood, 394
— effect on lipid content of rat liver, 332
— in blood of pancreatectomized dogs, 394
— C-Glucose, incorporation into mouse lipids, 475
IU-4ClGlucose, incorporation into protein, lipid in rat brain, 431
L-Glyceraldehyde, metabolism in rat liver microsomes, 930
Glyceraldehyde 3-phosphate, as precursor for phosphatidic acid synthesis, 88
L-Glyceraldehyde 3-phosphate, metabolism in rat liver microsomes, 930
Glyceridehyde 3-phosphate, metabolism in rat liver microsomes, 306
Glycerided distribution, wheat glycerolipids, 768
Glycerides, accumulation, fatty acid comp, Glomerella cingulata, 856

comp and positional distribution in propionicaci-daemia, 576 microsomal synthesis, 107

synthesis, fatty acid specificity, mammary gland, 777 transesterification of, 919 Glycerides, enantiomeric, melting points and specific rotations, 692

tions, 692
Glycerol, content of diphosphatidyl glycerol, 260
— metabolism in rat liver microsomes, 930
— stereospecific nomenclature, 942
1,2-dlacyl Glycerol, incorporation of fatty acid into rat liver, 787
1,2-isopropylidene-3-oleoyl-sn-Glycerol, synthesis, 734
2-linolenoyl-3-oleoyl-sn-Glycerol, synthesis, 784
3-oleoyl-sn-Glycerol, synthesis, 784
1-stearoyl-2-linoleoyl-3-0-triphenylmethyl-sn-Glycerol, synthesis, 784

thesis, 734
1-stearoyl-2-linoleoyl-sn-Glycerol, synthesis, 734
1-stearoyl-3-0-triphenylmethyl-sn-Glycerol, synthesis, 734
1-0-triphenylmethyl-2-linolenoyl-3-deoyl-sn-Glycerol, syn-1-0-triphenylmethyl-2-linolenoyl-3-deoyl-sn-Glycerol, synthesis, 734
1-0-triphenylmethyl-3-oleoyl-sn-Glycerol, synthesis, 734
1-0-triphenylmethyl-3-stearoyl-sn-Glycerol, synthesis, 734
1-0-triphenylmethyl-3-stearoyl-sn-Glycerol, synthesis, 734
1-0-triphenylmethyl-3-stearoyl-sn-Glycerol, synthesis, 734
Glycerol akiyat ethers, dolphin, 69
— GLC, TLC, 69
— GLC, TLC, 69
— GLC, TLC, 69
— GLC, TLC, 69
Glycerol esters, as seed oil constituents, 349
Glycerol kinase, in rat liver microsomes, triglyceride synthesis, 930
Glycerolipids, wheat, structural anal, 768
diacyl-sn-Glycerols, carbon, hydrogen anal, 734
— optical activity, 734
— physical properties, melting points, refractive index, 734
— synthesis using upsaturated fatter and synthesis using upsaturated fatter and synthesis using upsaturated fatter.

734

synthesis using unsaturated fatty acids, 734
1,2-diacyl-sn-Glycerols, synthesis from D-mannitol, 734
1,2-diacyl-sn-Glycerols, synthesis from D-mannitol, 734
Glycerophosphoryl glycerol, formation in housefly, microsomal fraction, 508
Glycerophosphoryl serine, formation in housefly, microsomal fraction, 508
Glyceryl alk-1'-enyl ethers, comp in rat brain, 170
Glyceryl alkyl ethers, comp in rat brain, 170
Glyceryl ether, chiorides, chromatographic properties, 341
Glyceryl ether phospholipids, fatty aldehyde profile, slime mold, 466
Glyceryl ethers, analytical methods, 170

mold, 466
Glyceryl ethers, analytical methods, 170
— conc in pig kidney phosphatidyl ethanolamine and phosphatidyl choline, 935
— in slime mold, 466
— quantitative anal procedure, 935
— reduction by LiAlHs, 935
Glyceryl ethers, diacyl, fatty acid profile of sea anemone,

Glycogen, content of rat liver, effect of fasting, 332 Glycolipid, Citrus, fatty acid profiles, 554—content in human serum, 369

content in human serum, 369
desulfation of, in mycobacteria, 40
hydroxy fatty acids of rat brain, 458
in rat brain, 458
molecular species, changes during desaturation in Chlorella vulgaris, 266
role in desaturation of plant fatty acids, 266
synthesis from glucose in rat brain, 431
Glycophospholipids, in corynebacteria, 401
Glycophospholipids, metabolism in rat brain, 959
Goat, mammary gland, phospholipids, 844
Goat, milk, phospholipids, 844
Goatadorphic hormone, effect on cholesterol ester, rat ovary, 791
Gourami, Trichogaster cosby. See fish, gourami, Tricho-

Gonadotrophic hormone, effect on cholesterol ester, rat oversy, 791
Gourami, Trichogaster cosby. See fish, gourami, Trichogaster cosby
Grignard reagent, mechanism of acyl migration during deacylation, 942
— use in stereospecific anal of triglycerides, 942
Guanosine triphosphate, effect microsomal desaturation reaction, 873
Guide to Authors, 67
Guinea pig, adrenals, cholestanol content, 517
Gum acacia, use in lipase assay, 805

Halogenation, of a-tocopherol, 240
Halphen test, for cyclopropenoid fatty acids, 426
Heart, lipid extraction, 935
— sarcosomes, peroxidation of lipids of, 715
Heart, beef, cardiolipin, isolation, comp and properties,
260

200

diphosphatidyl glycerol, isolation and properties, 2.

Heart, pig, fatty aldehydes profile of polar lipids, 935

GLC of fatty acids from mitochondria, 882

mitochondria, endogenous respiration, 882

LIPIDS, VOL. 6, NO. 12

mitochondria, lipid comp, 882
TLC of phospholipids from mitochondria, 882
Heart, rat, monoenoic fatty acid isomers, normal, EFA
deficient diet, 881
peroxidation of lipids of, 715
tocopherol content, 318
Heart muscle, human, triglyceride structure, 854
Hemocrit, of rat, normal and fasting, 332
Hemolymph, hornet, fatty acids of larvae, 850
Hemolysis, crythrocytes bioassay of vitamin E, 281
Hem liver, desctration in cell free homogenates, 78
Heparin, induced lipoprotein lipase activity, 369
— lipase activity in plasma in vivo, 805
Hepatic. See liver
Hepatic lipogenesis, salmon, liver, triglycerides, 347

Hepatic. See liver
Hepatic lipogenesis, salmon, liver, triglycerides, 347
— starvation, spawning salmon, triglyceride synthesis,

starvation, spawning salmon, triglyceride synthesis, 347
Hepatomegaly, in rats produced by SU-13,437, 783
Hepatomegaly, in rats produced by SU-13,437, 783
Heptadecanoic acid, hepatic esterification patterns, 576
n-Heptadecanoic acid, hepatic esterification patterns, 576
Heptadecanoic acid, hepatic esterification patterns, 576
Heptane, thermal oxidation product of methyl oleate, 758
Heptane, thermal oxidation product of methyl oleate, 758
Heptanoi, as substrate for alcohol dehydrogenase, 444
n-Heptylamine, electrical discharge induced reactions, 181
Herring, pristane content of oil, 520
n-Hexadecane, microbial oxidation, 458
cis-6-Hexadecenoic acid, in rat tissues, 831
in Thunbergia alata seed oil, 712
cis-7-Hexadecenoic acid, in rat tissues, 831
trans-6-Hexadecenoic acid, in rat tissues, 831

341

341
— in sea anemone, 341
trans-6-Hexadecenol, in sea anemone, 341
8,9-3-H-Hexadecyl alcohol, incorporation by slime mold into alkyl and alk-1-enyl glyceryl ethers, 470
Hexadecyl dodecanoate, crystal structure, 421
Hexadecyl elcosanoate, crystal structure, 421
Hexadecyl hexadecanoate, crystal structure, 421
Hexadecyl octadecanoate, crystal structure, 421
Hexadecyl etradecanoate, crystal structure, 421
2,4-Hexadienal, reaction with bovine serum albumin, 172
2,4-Hexadienal, ultraviolet spectrum while adsorbed on silica, 9 by slime mold

silica,

silica, 9

Hexanal, in cucumbers, synthesis from unsaturated fatty acids, 351

1.6-Hexanediol, dehydrogenation of, 437

Hexanoic acid, methyl ester, thermal oxidation product of methyl oleate, 758

Hexanoi, as substrate for alcohol dehydrogenase, 444

1-Hexanoi, dehydrogenation of, 437

2-Hexanal, in cucumbers, synthesis from unsaturated fatty acids, 351

High blood pressure, cholesterol a-oxide in serum, 836

High density lipoprotein, cholesterol esterification, 722

High density lipoprotein, cholesterol esterification, 722 — metabolism, 369 Hog. See pig

Hormones, circulating, effect of anovulatory drugs on, effect on lipogenesis in rat liver cells, 601

- steroid, in plants, 128 Hormones, sex, effect on lipid metabolism, 693

Hornet, fat content of queen and worker larvae, 850
— fatty acids profile in larvae, 850
— midget, lipid comp of larvae, 850

Hornet, oriental, lipid comp of larvae, 850

Housefly, deacylation of phospholipid by microsomes of, 508 metabolism of phospholipids, 508 microsomal phospholipid metabolism, 508

tion, 722 nan, adipose tissue, stereospecific fatty acid profile, 854

Human, aorta, cholestanol content, 517 Human, aorta plaques, stereospecific fatty acid profile, 854 Human, brain, distribution of TPNH-oxidase activity in microsomes, 297 Human, diet, in pure oxygen atmosphere, 740

Human, erythrocytes, cholestanol content, 517 lipids, genetic variability, 595

Human, genetics, effects on plasma and erythrocyte lip-ids, 595

Human, heart muscle, stereospecific fatty acid profile, 854 Human, kidney, cerebroside in globoid cell leukodystrophy, 488 lipid content, 433

water content, 433

water content, 433

Human, liver, distribution of TPNH-oxidase activity in microsomes, 297

— fatty acid profile in propionicacidaemia, 576
— stereospecific fatty acid profile, 854

Human, mucus, lipid comp, 859

Human, mucle, distribution of TPNH-oxidase activity in microsomes, 297

Human, ovary, cholesterol esterification, 815
— homogenates, incubation with 4-10-cholesterol, 815

Human, plasma, cholestanol content, 517
— collection procedure, 805
— esterification of cholesterol in vitro, hyperlipidemia, 722
— heparin released lipolytic activities, 805

722
heparin released lipolytic activities, 805
lecithin:cholesterol acyltransferase reaction, 740
lipoproteins, cholesterol, phospholipids, genetic variation, 595

multiple births, genetic variability effects on lipids,

multiple births, genetic variability effects on lipids, 595

phosphatidyl choline, in hyperlipidemia, 722
tocopherol, GLC, 35
tocopherol levels, 35
triglycerides in hyperlipidemia, 722
Human, serum, cholesterol esters, fatty acid profile, 815
lipid extraction, 836
sterols of, 836
Human breast cancer, correlation with fat intake, 415
Human serum albumin, fatty acid profile, 172
peroxidation, fatty acids, 172
reaction with methyl linoleate, 172
Hymmine, in anal of sphingolipids, 254
Hydratase, fatty acid, forward and reverse reactions, 541
sterospecificity, 541
Hydrocarbons, branched chain, unsaturated, identification in microorganisms, 190
enzymatic hydroxylation, Pseudomonas aeruginosa, 190
enzymatic hydroxylation, Pseudomonas aeruginosa, 190
enzymatic dydroxylation, Pseudomonas aeruginosa, 190
enzymatic hydroxylation, derivatives, forward propositives, forward propos

hydroxylated trimethylsilyl ether derivatives, formation, 190 in fish oils, 520

in hish oils, 520 in microorganisms, S. lutea and S. flava, 190 microbial cooxidation of, alkyl and cyclic, 453 microbial oxidation, ketones from, 448 microbial oxidation to acetate esters, 448 microbial oxidation to secondary alcohols, 448

microbia oxidation to secondary alcohols, 446
 olefinic in microorganisms, 190
 oxidation by permanganate-periodate, 190
 subterminal oxidation by microorganisms, 448
Hydrogen, electrical discharges, fatty acid polymerization,

Hydrogenation, of cactus sterols, 166
Hydrolysis, acid, of corynebacteria lipids, 401
Hydroperoxides, anal of as TMS-derivatives of methyl
hydroxyacids, 144
Hydroperoxyoctadecadienoic acid, product of lipoxygenase,
100

100

quantitation of 9- and 13- isomers, 100

reduction with NaBHs, 100

separation by gas liquid chromatography-mass spectroscopy, 100

trimethylsilyl derivatives, 100

Hydrophobic binding, of alcohol to yeast alcohol dehy-

Hydrophobic binding, of alcohol to yeast alcohol dehydrophobic enzymes, in hydrocarbon oxidation, 437 10-Hydrostearic acid, methyl ester, mass spectra, 906 12-Hydrostearic acid, methyl ester, mass spectra, 906 Hydroxy fatty acids. See fatty acids, hydroxy 1-Hydroxy-3-chloro-2-propanone phosphate, effect on isomerization of Leglyceraldehyde, 930 methyl-3\(\textit{3}\)-Hydroxy-24-norchol-5-en-23-oate, synthesis of all labeled company 12 23.

³H-labeled compound, 283
3β-Hydroxy-24-norchol-5-en-23-oic acid, synthesis of ³H-labeled compound, 233

9-Hydroxy-trans-10, cis-12-octadecadienoic acid, in seed oils, 617

ous, 617 10-Hydroxy-cis-12, cis-15-octadecadienoic acid, prep from linolenic acid, 745 13-Hydroxy-cis-9-trans-11-octadecadienoic acid, in seed oils, 617

9-Hydroxy-trans-3, trans-10, cis-12-octadecatrienoic acid, in seed oils, 617 10-Hydroxy-cis-12-octadecenoic acid, prep from linoleic

acid, 745 13-Hydroxy-trans-3, cis-9, trans-11-octadecatrienoic acid, in seed oils, 617

9-Hydroxy-a-tocopherone, oxidation product of a-tocoph-

LIPIDS, VOL. 6, NO. 12

24-Hydroxycholesterol, characterization by TLC, GLC and IR, 85 25-Hydroxycholesterol, characterization by TLC, GLC and

25-Hydroxycholestero,
IR, 85
— mobility, silica gel-silver nitrate TLC, 836
— retention index GLC, on OV-1, OV-17, 836
26-Hydroxycholesterol, characterization by TLC, GLC and

— In. commercial cholesterol from bovine brain and spinal cord, 85 Hydroxycholesterols, melting points of several, 85 Hydroxylamine, inhibitor of alcohol dehydrogenase, 444 Hydroxylamiae, bacterial, action on various hydrocarbons,

437
 5-Hydroxymethyl-γ-tocopherol, synthesis, 240
 10-Hydroxyoctadecanoic acid, prep from oleic acid, 745
 16-Hydroxypalmitic acid, methyl ester, mass spectra, 906
 12-Hydroxystearic acid, gas chromatography-mass spectrometry of trimethylsily ether, 962
 in oilseeds of Linum mucronatum, 962
 18-Hydroxystearic acid, methyl ester, mass spectra, 906
 DL-3H-DL-Hydroxystearic acids, keto acids in formation of the steril of

of, 541
— prep, 541
— substrates for fatty acid hydratase, 541
Hypercholesterolemia, cholesterol a-oxide detected in

Hypercholesterolemia, cholesterol a-oxide detected in serum, 836
Hyperlipemia, in dogs, effect on leukocytes, 895
— in nephrotic rats, 751
Hyperlipidemia, effect on esterification of cholesterol in vitro, 722
effect on LCAT, 722
Hypertriglyceridemia, evidence of monoglyceridase in post-heparin plasma, 805
— in post-heparin plasma, 805
— produced by SU-13,437 in rats, 783
— produced by SU-13,437 in rats, 783
— produced by anovulatory drugs, 693
Hypolipidemia, in Kwashiorkor, 208
Hypophysectomy, effect on rat ovary, 791
Hypoproteinemia, in Kwashiorkor, 208

I

Immunochemical studies, rat serum lipoproteins, 609 Immunoprecipitation, of labeled serum lipoproteins re-leased by rat liver cells, 609 Inhibitors, lipid synthesis, rat liver cells, 601 Inia geoffrensis, lipids of freshwater dolphin, 69 Inositides, in corynebacteria, 401 Insects, inhibition of sterol metabolism in, by azasterols,

113

— metabolism of phospholipids, 508

See specific name

Insulin, influence on fatty acids incorporation, in liver
of rats, 208

International Standard, for vitamin E, a-tocopherol ace-

tate, 281 International Unit, for vitamin E activity, new definition, 281 Intestine, rabbit, cholestanol content, 517

Intracerebral, injection of cholesterol precursors in rat,

Intralipid, as substrate for lipases, 805 Intraperitoneal, injection of cholesterol precursors in rat, 225

Iodination, methyl sterculate, 623 Iodoacetate, inhibitor of alcohol dehydrogenase, 444 Iododecane, inhibitor of alcohol dehydrogenase, 444 Ischemia, brain, free fatty acids, increased production, 211

grey and white matter, free fatty acids, 211
Iso-, branched hydrocarbons in microorganisms, 190
Isomerization, of diglycerides and lysophosphatidyl choline
from wheat, 768
Isotopic ratios, in egg after feeding dual labeled fatty
acids, 912
Isovaleric acid, beluga whale melon and blubber oils, 674

Ketones, intermediate in microbial oxidation of hydrocarbons, 448
Ketostearic acids, in formation of ³H-hydroxystearic acids,

E41

16-Ketostearic acid, methyl ester, mass spectra, 906
Kidney, chicken, distribution of TPNH-oxidase activity
in microsomes, 297
Kidney, human, cerebroside in globoid cell leukodystrophy, 433
— lipid content, 433
— water content, 433
Kidney, pig, fatty acid profile, 935

Kidney, rabbit, cholestanol content, 517
Kidney, rat, monoenoic fatty acid isomers, normal, EFA
deficient diet, 831
subcellular fractionation, 751
tocopherol content, 318
Kinetic, of acyl desaturation, 78
Krabbe's disease. See globoid cell leucodystrophy
Krill, fatty acid profile of various lipid classes, 481
— lipid comp, 481
Kusum oil, cyanolipids of, 349
Kwashiorkor, hypolipidemia, hypoproteinemia, 208
— in young children, 208
— lipid transport in, 208
— mobilization of fat in, 208
— mono- and polyenoic fatty acids distribution in plasma NEFA, 208
— oleic, linoien, linoienie acid in plasma, 208
— plasma NEFA levels in, 208

La-decopherol. See a-tocopherol

3H-Labeled 24-azacholesterol, prep, 233
Lactuca sativa, chloroplast sterols, 215
Lamb, plasma, lipida, fatty acid content, 26
— lipids, low fat diet, 26
— mobility, silica gel-silver nitrate TLC, 836
— retention index GLC, on OV-1, OV-1, OV-17, 836
— role in sterold biosynthesis, 219
Lard, diet effect on tocopherol deficient rats, 297
— fatty acid profile, 415
— induction of mammary tumor in rats, 415
Larva, insect, inhibition of, by azasterols, 113
Larvae, mosquito, lipid comp, 867
Larvae, mosquito, lipid comp, 867
Larvae, mosquito, lipid comp, 867
Lathosterol, conversion to 7-debydocholesterol in D. pachea, 166
— GLC anal, 166
— metabolism in D. pachea, 166
LDL. See low density lipoproteins
Leaf wax, wheat, 641
Lecithin, See wheatsidy sholing metabolism in D. pachea, 166

LDL. See low density lipoproteins

Leaf wax, wheat, 641

Lecithin. See phosphatidyl choline

Lecithin-holesterol acyl transferase, in human plasma,
effect of hyperlipidemia, 722

- reaction, inhibition by oxygen atmosphere, 740

- review, site of action, specificity, 369

Lecithin-cholesterol acyl transferase reaction, assay
method, 740

Leptospira biffexa, extracellular lipase, 276

Laucine, incorporation into lipoproteins, rat liver cells, Leucine, incorporation into lipoproteins, rat liver cells, incorporation into proteins, rat liver cells, 609 [1-14C]L-Leucine, incorporation into protein of rat brain, Leukocyte count, in rats fed SU-13,437, 783

Leukocyte, deg, 1¹⁴C-acetate incorporation into lipids, arteriosclerosis, 895

— mechanism of fatty acid synthesis, chain elongation, dog, 895

— metabolism of 1-¹⁴C-acetate, dog, arteriosclerosis-inducing diet, 895

Leukocytes, accumulation of lipid in, dogs fed athergonic diet, 895

DNA content, 895

— effect of athergonic diet on lipid metabolism, 895

— incubation with 1-¹⁴C-acetate, 895

— isolation from dog, 895

Lindlars eatalyst, in synthesis of unsaturated fatty acids, 889

Linoleic acid, adduct with oxidized a-tocopherol. 16 Leucocyte count, in rats fed SU-13,487, 783 Lindlars catalyst, in synthesis of unsaturated fatty acids, 889

Linoleic acid, adduct with oxidized a-tocopherol, 16

adducts of oxidized tocopherol, 1

and a-tocopherol, autoxidation of mixed monolayerers on silica, 16

as dietary supplement, rat, 47

autoxidation of monolayer on silica, 16

autoxidation products, ultraviolet spectra, adsorbed on silica, 16

biosynthesis in plants, 266

conversion to 10-hydroxy-cis-12-octadecenoic acid by bacteria, 745

desaturation by microsomes of rat liver, 873

emulsions, autoxidation and phospholipid bases, 196

esterification, liver glycerides, 307

esterification of, in basic solution, 919

in beef heart diphosphatidyl glycerol, 260

in mushrooms, 176

in oliseeds of Linum mucronatum, 962

in phospholipids of sheep liver, 926

in rat brain, metabolism, 378

incorporation, phosphatidyl choline, EFA deficient rat, 858

incorporation, triacylglycerol, EFA deficient rat, 858

incorporation into rat liver lipids, 203, 787

inhibition of fatty acid esterification in mammary inhibition of fatty acid esterification in mammary gland, 777 methyl ester, autoxidation, 196 methyl ester, emulsification by sonification, 196 methyl ester, peroxidizing reaction with albumin, 172 peroxide in tocopherol deficient rats, 297 pH effect, autoxidation, 196 plasma levels in Kwashiorkor, 208 precursor of the cucumber flavor, 351 role of phosphatidyl choline in plant biosynthesis of, 266 H. Li, 26 acid, metabolism in rat liver, 388

1. "C-Linoleic acid, incorporation, EFA deficient rat, 858

incorporation into milk glycerides, 777

incorporation into phospholipid in EFA deficiency, rat liver, 858
metabolism in rat, effect of diet, 47
leic acid, hydroperoxides, anal of as TMS-hydroxyacids, 144 acids, 144

Linolenic acid, conversion to 10-hydroxy-cis-12-cis-15 octadecadienoic acid by bacteria, 745

in beef heart diphosphatidyl glycerol, 260

in rat brain, metabolism, 378

incorporation into rat liver lipids, 787 — incorporation into rat liver lipids, 787
— methyl ester, mass spectra, 906
— plasma levels in Kwashiorkor, 208
— precursor of the cucumber flavor, 351
a-Linolenic acid, synthesis from oleic acid by microsomes, 873
7-Linolenic acid, as dietary supplement, rat, 47
— synthesis from linoleic acid by microsomes, 873
1-14C-Linolenic acid, incorporation into milk glycerides, 777 1-14C-γ-Linolenic acid, metabolism in rat, effect of diet, 47 dihomo-y-Linolenic acid. Sec 8,11,14 eicosatrienoic acid Linoleyi-Coenzyme A, biosynthesis in microsomes, 878—prep and extraction from liver microsomal preps, 878 prep and extraction from liver microsomal preps, 878

Linoleyl-Coenzyme A hydrolase, role in desaturation of linoleic acid, 873

Lipase, acid effect of actinomycin D, 54
acid effect of gibberellic acid, 54
acid in castor beans, 54
acid substrates for, 54
acid substrates for, 54
activity in human plasma, post-heparin, 805
activity toward lipoprotein classes of pig serum, 276
activity toward lipoprotein classes of pig serum, 276
activity toward lipoprotein classes of pig serum, 276
chain length specific and stereospecific anal, of triglycerides, 942
extracellular, from Leptospira biflexa, 276
extracellular, from Rhizopus arrhizus, 276
from Geotrichum candidum, 942
hydrolysis of pig serum lipoproteins, 276
inhibition by protamine, 805
hinetics of post-heparin plasma, 805
neutral absence in castor beans, 54
See also pancreatic lipase
Lipase, pancreatic, hydrolysis of pig serum lipoproteins, 276

Lipatereospecific anal of triglycerides from maise, 525 stereospecific anal of triglycerides from maise, 525 Lipid, monolayers on silica gel, 1 Lipid classes, GLC and TLC in dolphin jaw fat, 69 Lipid classes, GLC and TLC in doiphin jaw in Lipid extraction, from anaerobic bacteria, 745 — from beef heart, 260 — from bioluminescent bacteria, 410 — from boll weevil, 352 from boll weevil, 352 from bone and cartilage, 314 from bovine thyroid tissue, 661 from chloroplasts, 215 from cream, skim-milk, 844 from cucumbers, 351 from eggs, 912 from fungi, 856 from human, rat ovaries, 815 from human mucus, 859 from human mucus, 859
from krill, reb crabs, 481
from leukocytes, 895
from mosquito, eggs, larvae, 867
from mushrooms, 176
from mycelia, 176
from oranges, 826
from pig heart, spleen and brain, 935
from rat adrenal gland, 797
from rat liver, 203
from rat liver, 203
from rat liver, 347
from seminal vesicle gland, rat, 278
from seminal vesicle gland, rat, 278
from silme mold, 466
from sprophores, 176 from sporophores, 176 from Vernix caseosa, 5 from wheat flour, 768 LIPIDS, VOL. 6, NO. 12 human serum, 836

of corynebacteria lipids, 401

Lipid metabolism, and hormonal interrelationships, effects of anovulatory drugs, 693

Lipid monolayers, influence of urea on protein penetration, 546

lecithin, cholesterol, gangliosides, 546

penetration by proteins, 546

prep of, 546

Lipid transport, from roe to body in fish, 562

mechanisms in liver and plasma, 394

of liver triglycerides in EFA deficiency, 388

Symposium, beginning on page 357

Lipid-gas interfaces, reactions at, 181

Lipid-protein oxidation, by free radicals, Schiff base formation, 62

effect of antioxidants, 62

Lipids, and anovulatory drugs, a review, 693

content of salmon liver, 347

diol ether mass fragmentation patterns, mechanism, 727

distribution in human serum, 369 isolation and purification, 100
Liquid scintillation counting, 14C-labeled fatty acids, triglycerides, 777
of 3H-labeled gangliosides, 959
Lithium aluminum hydride, reduction of polar lipids, 170
Liter, cirrhosis and lipids, a review, 369
EFA deficient rat, linoleic acid incorporation, 858
incorporation of fatty acids into phospholipids, 307
lipid content, effect of anovulatory drugs on, 693
lipid re-mobilization, 394
metabolism of vitamin E, 318
microsomes, acyl CoA metabolism, pig, rabbit, rat, 107 microsomes, acyl CoA metabolism, pig, rabbit, rat, 107
microsomes, peroxidation of lipids of, 715
microsomes, rat, incubation with labeled fatty acids, 873
microsomes, rat, phosphatidic acid synthesis, 88
mitochondria, peroxidation of lipids of, 715
phospholipids, 394
rat, cholesterol biosynthesis in, 134
rat, trictycerides, effect of CCls, 141
Liver, catfish, distribution of TPNH-oxidase activity in microsomes, 297
Liver, chicken, distribution of TPNH-oxidase activity in microsomes, 297
Liver, tuman, distribution of TPNH-oxidase activity in microsomes, 297
lipid comp in propionicacidaemia, 576
triglyceride structure, 854
Liver, mouse, effect of SU-13,437 on lipids of, 475
Liver, mouse, effect of SU-13,437 on lipids of, 475
Liver, voirse, phospholipid classes and fatty acid profile, 266
Liver, sizean, cholestanol content, 515 distribution in human serum, 369 effect of anovulatory drugs on distribution of in humans, rats, 693 fluorescent, bovine brain, 670 fungal, during growth, 856 gas interfaces, reactions, 186 in adult brain of rat, 225 in developing brain of rats, 225 in rat brain on EFA deficient diets, 378 liver, incorporation of linoleic acid into, rat, 858 nitrogen-containing in Kusum seed oil, 349 of bone and cartilage, 314 of egg, fatty acid metabolism, 912 of human mucus, 859 of krill, 481 of mosquito and mosquito larvae, 867 Liver, pigeon, cholestanol content, 517 Liver, rabbit, cholestanol content, 517 Liver, rat, acetone powder, role in cholesterol synthesis, of krill, 481
of mosquito and mosquito larvae, 867
of mushrooms, sporophore and mycelia, 176
of pig heart mitochondria, 882
of rat liver cells, 601
of red crab, 481
of sarcotubular membrane, 357
of winter wheat flour, 768
peroxidation, fluorescence measurements, 715
secretion from liver, 388
synthesis in Chlorella vulgaris, 266
synthesis in rat liver cells, cofactor requirements, inhibition, 601
flustin, plgments and peroxidation of linids, 715 r, rat, acetone powder, role in cholesterol synthesis, 162
arachidonic acid incorporation, 787
biosynthesis of serum lipoproteins, 609
cholesterol and triglycerides content, 47
cholesterol biosynthesis, 987
conversion of linoleate to arachidonate, 388
conversion of squalene to cholesterol, 162
diet, effect on a-tocopherol and phospholipid alterations, 297
dietary influence on lipoprotein synthesis, 332
distribution of TPNH-oxidase activity in microsomes, 297
effect of fasting on lipids of, 47
effect of fasting on lipid content, 382
effect of SU-13,437 on cholesterol, 783
effect of SU-13,437 on plycogen, 783
effect of SU-13,437 on plycogen, 783
effect of SU-13,437 on plycogen, 783
effect of SU-13,437 on triglycerides, 783
enzymatic synthesis of cholesterol, 162
fatty acid incorporation into phospholipids, 787
glucose feeding, effect on, 332
glucose conversion to lipid, 332
glycogen content, effect of fasting, 332
hydrolysis of phospholipids by phospholipase Ac, 652
incorporation of 1-iC-acetate, 601
incorporation of arachidonic acid into phospholipids, 203
incorporation of arachidonic acid into phospholipids, 203 inhibition, 601
Lipofuscin, pigments and peroxidation of lipids, 715
Lipogenesis, mouse, effects of drugs on, 475
Lipogenesis, hepatic, effect of inhibition on serum lipoprotein synthesis by rat liver cells, 609
—— effect of rate on serum lipoprotein synthesis by rat liver cells, 609
Lipohydroperoxidsse, absence of, in purified lipoxygenase, 1100 Lipohydroperoxidase, absence of, in particular 100
Lipohysis, in castor bean, 54
— inhibition by albumin bound FFA, 274
— reesterification of FFA, 274
Lipohytic activity, comparison of albumin and calcium as fatty acid acceptors, 805
— comparison of methodology, 805
— effect of inhibitors in assay, 805
— effect of preincubation of inhibitors with plasma, 805 incorporation of arachidonic acid into phospholipids, 203 incorporation of U-14C-L-leucine radioactivity, 609 incorporation of linoleic acid in 1,2-diglycerides, 203 incorporation of linoleic acid into phospholipids, 203 insulin, effect on phospholipid synthesis, 203 insulin, effect on phospholipid synthesis, 203 insulin, effect on phospholipid synthesis, 203 isolation of sterol carrier protein from, 162 linoleic acid incorporation, 787 lipid content, 332 lipid synthesis, 601 lipogenesis in alices from, 332 lipid synthesis, 601 lipogenesis in alices from, 332 lipid synthesis, 332 method for isolation, 601 microsomal membrane phospholipids, unsaturated fatty acids, 297 microsome, prep from, 297 microsomes, L-glyceraldehyde isomerization by, 930 peroxidation of lipids of, 715 phosphatidic acid synthesis by microsomes, 930 phospholipid metabolism in EFA deficiency, 388 phospholipids, phosphorus, fatty acids, 649 positional incorporation of unsaturated fatty acids in phospholipids of, 787 specific activity ratios *H/4C fatty acids, 203 sterol metabolism, 225 subcellular fractionation, 751 a-tocopherol and alterations in phospholipids of microsomes, 297 incorporation of arachidonic acid into phospholipids, 805

effect of preincubation of plasma, 805

in post-heparin plasma, 805

measured with triglyceride, monoglyceride or phospholipid substrate, 805

Lipoprotein lipase, post-heparin, 698

serum lipoprotein metabolism, 369

Lipoproteins, blosynthesis of serum lower density, rat liver cells, 609

distribution in subjects taking anovulatory drugs, 608 distribution in subjects taking anovulatory drugs, 693

high density, hydrolysis by lipase, 276

LCAT activity in cirrhosis, 369

low density, hydrolysis by lipase, 276

metabolism, enzymes of, 369

methodology, a review, 369

phospholipids of in blood transport, 394
pig serum, triglycerides, structure fatty acid profile, 965

rat, effect of diet on, 332

regulation of biosynthesis, rat liver cells, 609
Lipoproteins, very low density, hydrolysis by lipase, 276
a-Lipoproteins, in rat serum, fasting, 332
pre-a-Lipoproteins, in rat serum, fasting, 332
pre-a-Lipoproteins, in rat serum, fasting, 332
pre-a-Lipoproteins, in rat serum, fasting, 332
Lipoxidase, in oxidation of fatty acids of cucumber, 351
Lipoxygenase, alfafa seed, 100

alfalfa seed and soybean compared, 100

distribution of positional isomers in product, 100

transport of triglycerides in EFA deficiency, 388 transport of triglycerides in EFA deficiency, 388
triglyceride synthesis, 203
Liver, salmon, lipid, protein water content, 347
triglycerides, starvation, hepatic lipogenesis, 347
Liver, toad, distribution of TPNH-oxidase activity in microsomes, 297
Liver, trout, cyclopropenoid fatty acids in, 426
Liver function, effect of anovulatory drugs, 693
Liver perfusion, in EFA and lipid transport, 388
Lophenol, GLC anal, 166
Lophocereus schotti, unusual sterols, lophenol, schottenol, in, 166
Low density lipoprotein, cholesterol esterification, 722
metabolism, 369 — metabolism, 369 Lung, porcine, surfactant lipids, lipid comp, 625 Lung, rat, monoenoic fatty acid isomers, normal, EFA deficient diet, 831 Luteal function, regulation of, 791 Luteinizing hormone, rat ovary, effect on cholesterol es-Luteinizing normone, rat ovary, effect of cholestero es-ters of, 791
Lycopersicon esculentum, chloroplast sterols, 215
Lyso-bis-phosphatidic acid, porcine surfactant, isolation, characterization, 625
Lysolecithin. See lysophosphatidyl choline
Lysophosphatidyl choline, fatty acid incorporation, rat fatty acid profile in boll weevil, 352 in boll weevil, 352 in bovine thyroid, microsomes and mitochondria, 661 in cystacanths, 763 in cystacantns, 765 in human mucus, 859 in krill and red crabs, 481 in mosquito eggs, larvae, pupae, adults, 867 in pig heart mitochondria, 882 in sheep liver, 926 role in fatty acid synthesis in Chlorella vulgaris, 266 200

synthesis in leukocytes, 895

wheat, anal of isomers, 768

Lysophosphatidyl ethanolamine, fatty acid profile in boll phosphatidyl ethanolamine, fatty acid profile in boll weevil, 352 fatty acid profile in wheat flour, 768 formation in post-heparin plasma, 805 in bioluminescent bacteria, 410 in boll weevil, 352 in krill and red crabs, 481 in mosquito eggs, larvae, pupae, adults, 867 in pig heart mitochondria, 882 300mes, contents, stimulators of cholesterol synthesis, 751 751 isolation from rat liver, kidney, 751

Lysozyme, from egg, effect on cholesterol synthesis in rat liver homogenates, 751

M

Maize, triglycerides, stereospecific anal, 525, 531, 537
Malnutrition, effect on myelin development and chemical
comp in rat brain, 458
Malonaldehyde, lipid-protein oxidation, Schiff base fluores-Malondialdehyde, formation in microsome of tocopherol Malondialdehyde, formation in microsome of tocopherol deficient rats, 297

Mammary gland, bovine, fatty acid specificity, triglyceride synthesis, 777

glyceride synthesis, 777

incubation medium for triglyceride synthesis, 777

prep of homogenates, 777

Mammary gland, rat, adenocarcinoma, induced by 7,12-dimethylbenz(a)anthracene, 415

Mammary tissue, fatty acid esterification, bovine, 326

Mammary tissue, tatty acid esterification, bovine, 326

Mammary tissue, rat, turnover of dietary cholesterol, 645

Mango, tocopherol content, 291

Mannitol, use in synthesis of optical activity diacyl glycerols, 734 erols, 734
Mannoinositides, in corynebacteria, 401
Mannophosphoinositides, in corynebacteria, 401
N-acetyl-"C-Mannosamine, in vivo labeling of ganglio-

N-acetyl-14C-Mannosamine, in vivo labeling of ganglio-sides, rat brain, 959
Mannose, in corynebacterium lipids, 401
Maria, pristane content of oil, 520
Marine bacteria, lipids of, 410
Marine plants, sterols in, 687
Mass spectra. See spectra, mass
Mechanism, acyl desaturase, proposed, 567
— of acyl desaturation, 78
Media, growth, bacteria, effect on fatty acid comp, 820
Medium, growth for anaerobic bacteria, 745
Medoxyprogesterone acetate, effect on lipid metabolism, 693

Megestrol, effect on lipid metabolism, 693 Melting point. See specific compound Melting points, enantiomeric glycerides, 692 Membranes, lipids of sarcoplasmic reticulum, 357
— microsomal, stabilization by a-tocopherol, 297
— of milk fat globule phospholipid content, 58
— of oil droplets of castor bean, 851
Membranes, mitochondrial, comp, antioxidants of, 147
Mercuric chloride, inhibitor of alcohol dehydrogenase, 444
Mestranol, effect on lipid metabolism, 693 Metabolic pathways, conversion of squalene to tetrahy-manol in T. pyriformis, 149 Metabolism, of alkanes by yeast, 444—of cholesterol and squalene in rat brain, 154—Methame, electrical discharges, fatty acid polymerization, 186
Methanolysis, in basic solution, using KOH or NaOH, reaction rates, 919
— prep of stable reagent for, 919
— role of water in reaction, 919
Methionine, correction of phospholipd abnormalities, 649
Methyl azelaaldehydate, synthesis, 758
— thermal oxidation product of methyl oleate, 758
Methyl azelaaldehyde, infrared spectrum, 758
— mass spectrum, 758
— mass spectrum, 758
Methyl 1.1.2-dihydroxystearate, apecific rotation, mass mass spectrum, 758
Methyl-11,12-dihydroxystearate, specific rotation, mass mass spectrum, 758
Methyl-1,1,2-dihydroxystearate, specific rotation, mass spectra, 745
Methyl esters. See fatty acid, methyl esters.
Methyl pimelaldehydate, thermal oxidation product of methyl oleate, 758
Methyl radicals, addition to n-heptadecanoic acid, 181
— addition to palmitic acid, 181
Methyl ricinoleate, specific rotation, 745
Methyl ricinoleate, apecific rotation, 745
— thermal oxidation product of methyl oleate, 758
— thermal oxidation product of oxidate, 758
— thermal oxidation product of various species of oranges, 826
— metabolism of, 219
16-Methylcholesterol, metabolism in T. pyriformis, 149
24-Methylepetadecanoic acid, in bacteria, 410
Methyl-10-hydroxy-cis-12-octadecanoate, specific rotation, mass spectra, 745
Methyl-10-hydroxy-cis-12-octadecenoate, specific rotation, mass spectra, 745
Methyl-10-hydroxy-cis-12-octadecenoate, specific rotation, 745
14-Methyl-10-hydroxy-cis-12-octadecenoate, specific rotation, trans-6-hexadecanol in, 341
lipid content, 341
Mevalonate, incorporation into cholesterol, 751
Mevalonate acid, incorporation in brain of rat, 154
— incorporation into brain, 225
— metabolism in T. pyriformis, 149
precursor in sterol biosynthesis, 219
Michealis constants, NAD*-linked dehydrogenase from yesst, 444
Microorganisms, alkyl and cyclic hydrocarbon cooxidation by, 453
— Corynebacterium, fatty acid profile, 820
— Erysipelothrix rhusiopathiae, fatty acid profile, 820
— family Micrococcaceae hydrocarbon content, 190
— Humicola grisea var. thermoidea, lipid comp, 589
— Humicola grisea var. thermoidea, lipid comp, 589
— Listeria monocytogenes, fatty acid profile, 820
— Sarcina litea hydrocarbon profile, 190
— Sarcina lutea hydrocarbon profile, 190
— sterols in, 128
— subterminal oxidation of hydrocarbons, 448
Microsomal membrane, inhibitor of cholesterol synthesis, mal membrane, inhibitor of cholesterol synthesis,

Microsomal membrane, inhibitor of cholesterol synthesis, 751

Microsomes, acyl CoA metabolism, effect of DFP and substrate, 107

assay of acyl CoA metabolism, spectrophotometric, radio-chemical, 107

desaturation by, from several rat tissues, 567

effect of peroxidation on enzyme activities, 715

glyceride synthesis from endogenous precursors, 107

isolation from rat brain, 164

mosquito, lipid comp, 867

oxygen uptake and lipid peroxidation, 715

phospholipids, high content of nervonic acid, 661

pig liver, acyl CoA metabolism, 107

rat liver, acyl CoA metabolism, 107

rat liver, desaturation of linoleic acid by, 873

rat, liver, incubation with labeled fatty acids, 873

rat liver, prep, 297

rat liver and phosphatidic acid synthesis, 88

stabilization by a-tocopherol, 297

sterol metabolism in rat brain, 225

Microsomes, glycerol kinase, activity in rat liver, 930

Microsomes, houseffy, phospholipid metabolism, 508

Microsomes, liver, peroxidation of lipids of, 715

Milk, evidence of cell membranes in, 58

phospholipids, synthesis of, 844

LIPIDS, VOL. 6, NO. 12

phospholipids in, skin and milk fat globule membrane, 58 brane, 58
sources of cholesterol in rat, 645
turnover of dietary cholesterol in rat, 645
Milk, goat, phospholipid, origin of, 844
turnover of dietary cholesterol, 645
Milk fat, fatty acid profile, 942 milk fat, fatty acid profile, 942

— glyceride synthesis, 777

Millet, tocopherol content of seeds, 291

Mitochondria, alcohol dehydrogenase in, 444

— antioxidants and fatty acids of, membranes, 147

bovine thyroid, phospholipid fatty acids, 661

— effect of peroxidation on enzyme activities, 715

— isolation from rat brain, 154

— isolation from rat briver, kidney, 751

— mosquito, lipid comp, 867

— oxygen uptake and lipid peroxidation, 715

— pig heart, added ADP, effect on respiration of, 882

— pig heart, added ATP, effect on respiration of, 882

— pig heart, added hexokinase, effect on respiration of, 882

— pig heart, added hexokinase, effect on respiration of, 882

— pig heart, added hexokinase, effect on respiration of, 882 pig heart, added hexokinase, effect on respiration of, 882

pig heart, added NAD*, effect on respiration of, 882

pig heart, endogenous respiration, 882

pig heart, lipid comp, 882

pig heart, lipid comp, 882

pig heart, oxygen uptake, 882

Mitochondria, liver, peroxidation of lipids of, 715

Molecular weight determination, by field ionization mass spectrometry, 906

Monkey, anemia, dystrophy, bioassay of tocopherol, 281

Monoallyl ethers, of diols, mass spectra, 727

Monocarbonyl-2,4-dinitrophenylhydraxones, chromatography on alumina columns, 351

Monogalactosyl diglyceride, fatty acid transformation during de novo synthesis from acetate, 266

from Citrus, fatty acid profiles, 554

in plants, role in fatty acid synthesis, 266

wheat, stereoanalysis of fatty acids, 768

6-D-acyl Monogalactosyl diglyceride, wheat, anal of fatty acids, 768

Annestrectives in poet honogin plants, plants, of the profiles, wheat, anal of fatty acids, 768 acids, 768

Monoglyceride, in post-heparin plasma, 805

Monoglyceride, enzymatic hydrolysis by post-heparin plasma, 805

— evidence of monoglyceridase in post-heparin plasma, 805

— 805 805
in assay of plasma lipase, 805
in human mucus, 859
in mosquito larvae, 867
in mushrooms, 176
purification by column chromatography, 805
synthesis in mammary tissue, 326
wheat, anal of isomers, 768
Monolayers, adsorbed autoxidized lipid, ultraviolet spectra, adsorbed lipid, ultraviolet spectrophotometry, 9 See lipid monolayers — See lipid monolayers

2-Monoolein, effect on cholesterol absorption, rat, 964

Mosquito, phospholipid comp, 867

— subcellular fractions, lipid comp, 867

Mouse, brain, sphingolipid synthesis, 682

— effect of hypolipidemic drug on lipids of, 475

— incorporation of labelled precursors into lipids of, Mouse, liver, effect of SU-13,437 on lipids of, 475 Mouse, plasma, effect of SU-13,437 on lipids of, 475 Mouse, plasma, effect of SU-13,437 on lipids of, 475
Mouse, quaking, sphingolipid synthesis by brain particulates, 682
Mucus, human, lpiid comp, 859
Muscle, catfish, distribution of TPNH-oxidase activity in microsomes, 297
Muscle, chicken, distribution of TPNH-oxidase activity in microsomes, 297
Muscle, human, distribution of TPNH-oxidase activity in microsomes, 297 Muscle, human, distr microsomes, 297 microsomes, 297
Muscle, rat, distribution of TPNH-oxidase activity in microsomes, 297
Muscle, toad, distribution of TPNH-oxidase activity in microsomes, 297
Mushrooms, fatty acid profile, 176
— growth media, 176
— linoleic acid content, 176
— lipid comp, 176
— lipid extraction of, 176
— lipid extraction of, 176
— lipids, separation by TLC, 176
— monoglycerides, 176
— monoglycerides, 176
— phosphatidyl choline, phosphatidyl ethanolamine, 176
— sporophore and mycelial lipids, 176
— sterols, 176
— sterols, 176 sterols, 176 triglycerides, 176 Muskmelon, tocopherol content, 291 Mustard seed oil, tocopherol content, 291

Mycelial, lipid content, 176
Mycobacterium tuberculosis, sulfolipids, 40
Myelin, prep from rat brain, 378
—— rat brain, chemical comp, effect of malnutrition on, 458
Myristic acid, biosynthesis in plants, 266

N

N-acyl neuraminic acid. See sialic acid
NAD*-linked, alcohol dehydrogenase in yeast, 444
Nafenoic acid. See SU-13,437
Naphthalene, microbial oxidation, 458
Neem oil, tocopherol content, 291
Nephrosis, effects on hepatic cholesterol synthesis, 751
— induction in rat by aminonucleoside, 751
Nervonic acid, bovine thyroid microsomal phospholipids, 661
Neutral lipids, dog leukocytes, fatty acid profile, 895
— fatty acid incorporation in leukocytes, 895
— fatty acid incorporation in leukocytes, 895
— fatty acid incorporation in leukocytes, 895
— fatty acid metabolism in chickens, 912
— in human mucus, 859
— in krill and red crabs, 481
— monoenoic fatty-acid isomers, EFA deficiency, 831
— of mosquito, 867
— of mushrooms, 176
— pig heart mitochondria, 882
Nitrile lipids, in Kusum seed oil, 349
NMR. See spectra, nuclear magnetic resonance
Nomenclature, shorthand notation for multi-branched chain fatty acids, 862
— triglycerides, 942
2,8-Nonadienal, in cucumbers, synthesis from unsaturated fatty acids, 351
Nonadiena, in cucumbers, synthesis from unsaturated fatty acids, 351
Nonadien, ynthesis of 1,3 and 2,4, 635
— thermal rearrangement, 635
Nonanal, in cucumbers, synthesis from unsaturated fatty acids, 351
Nonanien, in cucumbers, synthesis from unsaturated fatty acids, 351
Nonanal, in cucumbers, synthesis from unsaturated fatty acids, 351
Nonanal, in cucumbers, synthesis from unsaturated fatty acids, 351
Nonanal, in cucumbers, synthesis from unsaturated fatty acids, 351
Nonanal, in cucumbers, synthesis from unsaturated fatty acids, 351
Nonanol, as substrate for alcohol dehydrogenase, 444
2-Nonenal, in cucumbers, synthesis from unsaturated fatty acids, 351
Non-asponifable lipids, in rat brain, metabolism, 225
Norepinephrine, calorigenic effect on rats, 486
— effect on lipolysis, 274
— induced increase in oxygen consumption, 486
— influence of age on calorigenic effect, 486
— influence of age on calorigenic effect on lipid metabolism, 693
Norethindrone acetate, effect on lipid metabolism, 693
Nuclei, mosquito, lipid comp,

influence on cold acclimation on effect of, 486
Norethindrone, effect on lipid metabolism, 693
Norethindrone acetate, effect on lipid metabolism, 693
Norethynodrel, effect on lipid metabolism, 693
Norethynodrel, effect on lipid metabolism, 693
Nuclei, mosquito, lipid comp, 867
Nuclei, mosquito, lipid comp, 868
Nortaley, 868
Nortale, 1982
Nortaley, 1983
No

- Moringa concanensis, triglyceride comp, 666

palm-kernel, triglycerides, fatty acid profile, 630

palm-kernel, triglycerides, GLC fractionation, 63

palm-kernel, triglycerides, groups and types, 630

Ricinus communis oil droplets, 851

Schleichera trijuga, cyanolipids, 349

Olefinic linkages, dtmn of their position, 961

Olefins, in microorganisms, 190

Oleic acid, alternative pathways for biosynthesis, 266

biosynthesis in plants, 266

cholesterol absorption, rat, 964

desaturation by rat liver microsomes, 873 Palm oil, tocopherol content, 291 Palm eil, tocopherol content, 291

Palm-kernel oil, triglycerides, groups and types, 630

Palmitic acid, addition of ethyl radicals to, 181

addition of methyl radicals to, 181

biosynthesis in plants, 266

desaturation by rat liver microsomes, 873
electrical discharge induced insolubilization, 186

Palmitic acid, Na-1-C¹⁴, incorporation into milk lipids, 58

31-Capamitic acid, in triglyceride synthesis by rat liver, 930 cholesterol absorption, rat, 994
desaturation by rat liver microsomes, 878
in beef heart diphosphatidyl glycerol, 260
in oilseeds of Linum mucronatum, 962
in rat adrenal gland cholesterol esters, 797
in roe wax esters, 562
incorporation into Chlorella vulgaris lipids, 266
methyl ester conversion to expedid 961 930

incorporation by slime mold into alkyl and alk.l-enyl glyceryl ethers, 470

incorporation into milk glycerides, 777

incorporation into triglycerides, phospholipids, 326

precursor for phosphatidic acid synthesis, 88

Palmitoleic acid, in rat adrenal gland cholesterol esters, methyl ester, conversion to epoxide, 961 methyl ester, conversion to epoxide, 961 methyl ester, thermal oxidation, 758 plasma levels in Kwashiorkor, 208 positional isomer, in rat tissues, 831 turnover in gouramis, 562 — in rat tissues, 831

Palmitoyl phosphatidyl choline, separation from stearoyl phosphatidyl choline, 365

Pancreas, dog., effect of removal on lipid metabolism, 394

Pancreatetomy, dogs, fatty liver, 394

Pancreatie lipase, anal of pig triglycerides, structure, 965

— hydrolysis of pig serum lipoproteins, 276

— in stereospecific anal of galactolipids, 768

— in stereospecific anal of galactolipids, 768

— in stereospecific anal of triglycerides, 942

See also lipase turnover in gouramis, 562

I-16C-Oleic acid, esterification to cholesterol by ovarian tissue, 815 cissue, 815
incorporation into milk glycerides, 777
metabolism in chickens, 912
prep of 1-14C-stearolic acid from, 541
Oleic acid, biological reduction to oleyl alcohol by fish, 562 U-14C fish, 562
in triglycerides of fish, 562
in wax esters of fish roe, 562
metabolism of by fish, half-life, 562
Oleic acid, ethyl ester, synthesis of deuterium labeled compound, 912
leicht webbel ester was in market in factorium labeled compound, 912 — in stereospecific anal of triglycerides, 942
— See also lipase
— use in determining positional specificity of fatty acids of phospholipids, 935
Paraffin hydroxylase, in Pseudomonas aeruginosa, 437
Peanut oil, tocopherol content, 291
Peanut, tocopherol content of seeds, 291
Peans, tocopherol content of seeds, 291
Pecans, tocopherol content of seeds, 291
Petanal, in cucumbers, synthesis from unsaturated fatty acids, 351
— Pentanal, in cucumbers, synthesis from unsaturated nosa, 437
— Pentanal, in cucumbers, synthesis from unsaturated 2-Pentanal, in cucumbers, synthesis from unsaturated Oleic acid, methyl ester, use in synthesis of methyl azelaaldehyde, 758
9,10-3H-Oleic acid, methyl ester, synthesis from stearolic acid, 912
Oleyl alcohol, from oleic acid in the fish, 562
— in roe wax esters, 562

1-4-C-Oleyl coenzyme A, fatty acid synthesis in castor bean, 551
Olive oil, diet of rat effect on adrenal cholesterol esters, 797 nosa, 437 2-Pentenal, in cucumbers, synthesis from unsaturated 2-Pentenal, in cucumpers, symmetry, fatty acids, 351
Peptic ulcer, cholesterol a-oxide in serum, 836
Peptides, in human serum lipoproteins, 369
Periodate, oxidation of olefinic hydrocarbons, 190
Perlauric acid, as epoxidizing agent, 961
Permanganate, oxidation of olefinic hydrocarbons, 190 797
— fatty acid profile, 415, 797
— induction of mammary tumor in rats, 415
— positional fatty acid profile, 942
— tocopherol content, 291
Onchorhychus grobuscha, liver, triglyceride synthesis, 347
Orange, tangor, juice sac sterols, 826
— SP-Orthophosphate, phospholipid metabolism in dogs, fatty liver, 394
Ovarian, lind convents offect of annual town down as a Permanganate, oxidation of olefinic hydrocarbons, 190
Peroxidation, and dietary antioxidants in rats, 715
and dietary polyunsaturated fatty acids, 715
free radical reactions in vivo, rats, 715
measurement by fluorescence methods, 715
microsomal lipids effect on enzyme activities, 715
microsomal lipids, effect on enzyme activities, 715
of lipid, fluorescent products, 172
of lipid, fluorescent products, 172
of polyunsaturated fatty acids, plasma, 740
Petroleum ether, extraction of cholesterol from chloroplasts by, 215
Petroleum ether, extraction of cholesterol from chloroplasts by, 215
Phaseolus vulgaris, chloroplast sterols, 215
Phenyldichlorophosphate, in anal of glycerides of Limnanthes douglasis seed oil, 93
Phosphate, inorganic, in milk, 844
P-Phosphate, incorporation into milk phospholipid, 844
injection, intravenously, recovery in milk, 844
inorganic incorporation in phospholipids of housely, 508 fatty liver, 334

Ovarian, lipid content, effect of anovulatory drugs on, 693

Ovarian, rat, tocopherol content, 318

Ovary, effect of PGF3a on, rat, 791

Ovary, human, cholesterol esterification, 815

Ovary, rabbit, cholesterol esterification, 815

Ovary, rat, cholesterol esterification, 815

Ovary, rat, cholesterol esterification, 791

— cholesterol esters synthetase activity, 791

— cholesterol estersas activity, 791

— effect of PGF3a on lipids, progesterone, 791

— incubation for metabolis study, 791

Oxidase, TPNH, metabolism of a-tocopherol, 297

Oxidation, free radical formation in lipid-protein systems, 62 microbial, hydrocarbons to alcohols, ketones, acetate esters, 448 microbial, of alkyl and cyclic hydrocarbons, 458 microbial, subterminal of hydrocarbons, 448 L-a-Phosphatidate phosphohydrolase, in glyceride syntheof lipid-protein systems, 62 of a-tocopherol, 240 L-a-Phosphatidate phosphohydrolase, in glyceride synthesis in mammary tissue, 326
Phosphatidic acid, in cartilage, 314
— in Humicola grisea var. thermoidea, 589
— in mosquito eggs, larvae, pupae, adults, 867
— synthesis by rat liver microsomes, 930
— synthesis of, by rat liver microsomes, 88
Phosphatidyl choline, carbon number, rat, liver and bile, 307 periodate, of intact phospholipids from porcine lung surfactant, 625

Schiff base formation in lipid-protein systems, 62

thermal, methyl cleate, 758

Oxidation, EPR, fluorescence spectra in lipid-protein systems, 62 Oxidative phosphorylation, pig heart mitochondria, 882 9-Oxononanoic acid, methyl ester, NMR and mass spectra, 307
dietary, metaboliam by lactating rat, 844
fatty acid profile, rat liver, 649
fatty acid profile, sheep liver, 926
fatty acid profile in boll weevil, 352
fatty acid profile in propionicacidaemia, 576
human plasma, in hyperlipidemia, 722
in bowine thyroid, microsomes and mitochondria, 661
in cartilace, 314 13-Oxotridecanoic acid, methyl ester, NMR and mass spectra, 961 Oxygen, absorption by methyl linoleate emulsions, 196—atmosphere, in vivo effects on cholesterol ester metabolism, 740—atmosphere, in vivo inhibition of plasma lecithin-cholesterol acyltransferase, 740 in bowine thyroid, microsomes and mitocnond in cartilage, 314 in cystacanths, 768 in human mucus, 859 in Humicola grisea var. thermoidea, 589 in krill and red crabs, 481 in mosquito eggs, larvae, pupae, adults, 867 in mushrooms, 176 in plants, role in fatty acid synthesis, 266 1°Oxygen, incorporation into oxirane ring of epoxystea-rate, 581 Oxygen uptake, by linoleate emulsions, 196

— by rat liver mitochondria microsomes, 715
Ozonolysis, GLC of oxygenated unsaturated acids, 617

— of 12-hydroxystearic acid, 962

— of unsaturated fatty acids, 712

```
O-Phosphocholine, role in autoxidation of methyl linoleate emulsions, 196
O-Phosphoethanolamine, role in autoxidation of methyl linoleate emulsions, 196
Phosphoinositides, in corynebacteria, 401
Phospholipase, assay procedure, 805
— in post-heparin plasma, 805
— similarity to lipase in post-heparin plasma, 805
— hospholipase A, anal of pig phospholipid fatty acids, structure, 965
— effects of on sarcotubular membrane function, 357
— in stereospecific anal of triglycerides, 942
— use in determining positional specificity of fatty acids of phospholipids, 325
— hospholipase A, king cobra venom, hydrolysis of phospholipids, 525
— in anal of triglycerides, 525
— hospholipase As, hydrolysis inhibition by bile, 652
— hydrolysis of phospholipids, 652
— rat pancreatic piuce, 652
Phospholipase C, effects of on sarcotubular membrane function, 357
— use in stereospecific anal of fatty acids, 768

Phospholipase B, Peffects of on sarcotubular membrane function, 357
                                     in rat brain, 458
in rat heart mitochondria, 882
in sheep liver, 926
in synthesis of linoleic acid in plants, 266
incorporation of fatty acids in rat liver, 787
inhibitor of cholesterol synthesis, 751
linoleic acid incorporation, EFA deficiency, 858
linoleic and arachidonic acids positional distribution,
902
                                        liver synthesis, 394
metabolism of molecular species in liver, 307
monolayers, 546
                                          of mosquito, 867
pig adipose tissue, 965
pig serum, 965
                                        porcine lung surfactant, isolation, characterization, 625
                                        625
positional distribution of 17-carbon acids, 576
positional isomers in pig kidney, 935
separation by counter-current distribution, 355
synthesis in leukocytes, 895
synthesis in rat liver, 203
transport to plasma, 394
wheat, stereoanalysis of fatty acids, 768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    runction, 357
— use in stereospecific anal of fatty acids, 768

Phospholipase D, effects of on sarcotubular membrane function, 357

Phospholipid bases, role in autoxidation of incleate emul-
transport to plasma, 334
wheat, stereoanalysis of fatty acids, 768
Phosphatidyl ethanolamine, carbon number, rat, liver and bile, 307
fatty acid incorporation in liver diabetic rats, 208
fatty acid profile, rat liver, 649
fatty acid profile in boll weevil, 352
fatty acid profile in propionicacidaemia, 576
identification of, in bacteria, 410
in boll weevil, 352
in bovine thyroid, microsomes and mitochondria, 661
in cartilage, 314
in cystacanths, 763
in human mucus, 859
in Humicola grisea var. thermoidea, 589
in krill and red crabs, 481
in mosquito eggs, larvae, pupae, adults, 867
in mushrooms, 176
in rat brain, 458
in rat heart mitochondria, 882
in sheep liver, 926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                function, $57

Phospholipid bases, role in autoxidation of linoleate emulsions, 196

Phospholipids, arachidonic acid incorporation, 307

as inhibitors of cholesterol synthesis, 751

autoradiograms of $P$ labelled, 314

bile salt mixture resistance to phospholipase Az, 652

bovine, thyrold, mitochondria, microsomes, 661

brain, effect of EFA deficiency, 378

carbon number, liver and bile of rat, 307

classes, fatty acid profile of ovine liver, 926

comp of boll weevil, 352

comp of cartilage, 314

content of bone and cartilage, 314

content rat serum, liver, 332

deacylation by microsomes, 508

differential turnover of molecular species, 307

distribution in human serum, 369

dog leukocytes, fatty acid profile, 895

during growth in Glomerella cingulata, 856

effects in thromboplastic activity, 139

effects on hepatic cholesterol synthesis, 751

enzymatic hydrolysis by post-heparin plasma, 805

epiphyseal cartilage, chicken, incorporation of Paz, 314

fatty acid incorporation in leukovytes, 895
                                              in rat heart mitochondria, 882 in sheep liver, 926 incorporation of fatty acids in rat liver, 787 inhibitor of cholesterol synthesis, 751 linoleic acid incorporation, EFA deficiency, 858 linoleic and arachidonic acid positional distribution, one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       epiphyseal cartilage, chicken, incorporation of Pac, 314
fatty acid incorporation in leukocytes, 895
fatty acid metabolism in chickens, 912
fatty acid profile, fungi, 856
fatty acid profile, fungi, 856
fatty acid profile, rat brain, 458
fatty acid profile of sea anemone, 341
fatty acids, in brain, EFA deficiency, 378
hydrolysis by phospholipase A, 787
hydrolysis by snake venom, 203
in bioluminescent bacteria, 410
in cystacanths, 763
in diabetic rats, synthesis, 203
in human mucus, 859
in Humicola grisea var. thermoidea, 589
in lamb plasma, 26
in rat brain, 458
in skim milk and milk fat globule membrane, 58
incorporation of fatty acid into rat liver, 787
incorporation of palmitate into, in milk, 58
incorporation of palmitate into, in milk, 58
incorporation of palmitate into, in milk, 844
linoleic acid incorporation, 307
liquid scintillation counting of 327 labelled, 314
mannophosphoinositides, phosphatidylgly erol, in
corynebacteria, 401
metabolism, in calcifying cartilage, 314
metabolism, liver, rats, corn oil diet, 388
metabolism, liver, rats, fat free diet, 388
metabolism, liver, rats, corn oil diet, 388
metabolism, liver, rats, corn oil diet, 388
metabolism, serum, rats, corn oil diet, 388
           — metabolism of molecular species in liver, 307
— of mosquito, 867
— pig adipose tissue, 965
— porcine lung surfactant, isolation, characterization, 625
         opositional isomers in pig kidney, 935
opositional isomers in pig kidney, 935
separation by counter-current distribution, 355
synthesis in leukocytes, 895
wheat, stereoanalysis of fatty acids, 768
Phosphatidyl glycerol, in bioluminescent bacteria, 410
in correspondencia, 401
                                              pratiagy gyeers, in bioluminescent bacteria, 410 in corynebacteria, 401 in plants, role in fatty acid synthesis, 266 in rat heart mitochondria, 882 metabolism in insects, 598 porcine lung surfactant, isolation, characterization, 626
         Phosphatidyl inositol, in boll weevil, 352
in bovine thyroid, microsomes and mitochondria, 661
in corynebacteria, 401
in Humicola grisea var. thermoidea, 589
in mosquito eggs, larvae, pupae, adults, 867
in rat brain, 458
in rat heart mitochondria, 882
in sheep liver, 926
incorporation of fatty acids into, rat liver, 307
inhibitor of cholesterol synthesis, 751
metabolism in insects, 508
synthesis in leukocytes, 895
Phosphatidyl phenols, hydrolysis by phospholipase A from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             metabolism, serum, rats, corn oil diet, 388
metabolism, serum, rats, fat free diet, 388
metabolism, serum, rats, hydrogenated coconut oil
           Phosphatidy phenols, hydrolysis by phospholipase A from
king cobra venom, 525
— in anal of glycerides of Limnanthes douglasii seed
oil, 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         metabolism, serum, rats, lat free det, 368
metabolism in fungi, 856
metabolism in fungi, 856
metabolism in houseflys, 508
metabolism in insects, 508
metabolism in insects, 508
metabolism in rat liver, bile, 307
metabolism in rat liver, bile, 307
metabolism in rat liver, bile, 307
metabolism in slime mold, 473
milk, origin and distribution, 58
molecular species, changes during desaturation in Chlorella vulgaris, 266
monoenoic fatty acid isomers, EFA deficiency, 831
of milk, 844
of slime mold, 466
peroxide formation by TPNH-oxidase, 297
pH optimum, time course for deacylation of by housefly microsomes, 508
         oil, 93

in stereospecific anal of triglycerides, 525

TLC, 525

Phosphatidyl serine, fatty acid profile, sheep liver, 926

in boll weevil, 352

in bovine thyroid, microsomes and mitochondria, 661

in cartilage, 314

in cystacanths, 763

in Humicola grisea var. thermoidea, 589

in krill and red crabs, 481

in mosquito eggs, larvae, pupae, adults, 867

in rat brain, 458

in sheep liver, 926

incorporation of fatty acids into, rat liver, 307

metabolism in insects, 508

synthesis in leukocytes, 895
                                                synthesis in leukocytes, 895
```

pig adipose tissue, structure fatty acid profile, 965 pig heart mitochondria, 882 pig serum, structure fatty acid profile, 965 positional isomers, separation by counter-current effect of dietary lipids on lipids of, 47 Plasmalogens, cone in pig kidney phosphatidyl ethanolamine and phosphatidyl choline, 935 fatty aldehyde profile, alime mold, 466 positional isomers, separation by counter-cui distribution, 355 positional specificity of fatty acids, 935 profile from slime mold, 466 protection from oxidation by a-tocopherol, 297 quantitative anal of, in marine bacteria, 410 radioactive, metabolism and biosynthesis, 844 in germ-free and conventional rat brain, 170 in mosquito, 867 in pig heart mitochondria, 882 in mosquito, 867
in pig heart mitochondria, 882
pig serum, adipose tissue, 965
Plastieizers, chloroform contaminants, 523
Platelets, and contraceptive therapy, effects of anovulatory druga, 693
Pleuroncodes planipes, lipid comp, 481
Polar lipids, mesophilic and thermophilic fungi, 584
Poly-β-hydroxybutyrate, in bioluminescent bacteria, 410
Polymerization, of fatty acids by corona discharge, 186
Polymorphus minutus, diglyceride content, 763
fatty acid profile, 763
fatty acid profile, 763
free fatty acid content, 763
(Acanthocephala), lipid comp, 763
(Acanthocephala), lipid comp, 763
long chain alcohol profile, 788
lysophosphatidyl choline content, 763
phosphatidyl chanolamine content, 763
phosphatidyl ethanolamine content, 763
sphingomyelin content, 763
sphingomyelin content, 763
steroid content, 763
vax ester comp, 763
Polyunsaturated fatty acids. See fatty acids, unsaturated, poly radioactive, metabolism and biosynthesis, 844 rat bile, resistance to phospholipase Az, 652 rat liver, hydrolysis by phospholipase Az, 652 rat testis, fatty acid synthesis, 706 sarcoplasmic reticulum function, 357 serum, metabolism by mammary gland, 844 several classes, human plasma, genetic variability, 606 several crasses, numan plasma, genetic variability, 595

stereospecific incorporation of fatty acids in rat liver, 787

synthesis, liver, 394

synthesis by mammary gland, 844

synthesis from acetate in salmon liver, 347

synthesis from glucose in rat brain, 431

synthesis in mammary tinsue, 326

synthesis in rat liver, 203

TLC, from milk, 58

transesterification of, 919

transport from liver in EFA deficiency, 388

unsaturated fatty acids content, lamb plasma, 26

Phosphorolipids, in mosquito, 867

Phorphorus, content of diphosphatidyl glycerol, 260

Phosphoryl bases, role in autoxidation of linoleate emulsions, 196 rated, poly

Poppyseeds, tocopherol content of seeds, 291

Porcine, lung, surfactant, isolation by perfusion technique, 625 Phosphoryl bases, role in autoxidation of linoleate emulsions, 196
Phosphorylation, of a-tocopherol, 240
Phosphorylation, oxidative, pig heart mitochondria, 882
O-Phosphoserine, role in autoxidation of methyl linoleate emulsions, 196
Photobacterium, lipids of, 410
Physarum polycephalum, biosynthesis of ether containing lipids, 470
— phospholipid comp, 466
— See slime mold Porcine, lung, surfactant, isolation by periusion technique, 625
Porcine, lung, surfactant, lipid comp. 625
Porcine, lung, surfactant, lipid comp. 625
Poriterasterol, metabolism in T. pyriformis, 149
Positional distribution, of 17-carbon fatty acids in phosphatidyl choline in propionicacidaemia, 576

— of 17-carbon fatty acids in triglycerides in propionical distribution 576 icacidaemia, 576

of fatty acids in maize triglycerides, 525

Potassium cyanide, inhibitor of alcohol dehydrogenase, 444 — sphospholipid comp, 466
— See slime mold
Phytane, in fish oils, 520
Phytosterols, 128
— metabolism of, 219
Pig, liver microsomal metabolism of acyl CoA, 107
Pig, alipose tissue, phospholipid structures, 965
— triacylglycerol structure, 965
— triacylglycerol structure, 965
— triacylglycerol structure, 965
— ig, brain, aldehydogenic chain profile of polar lipids, 935
Pig, heart, aldehydogenic chain profile of polar lipids, 935
— GLC of fatty acids from mitochondria, 882
— mitochondira, endogenous respiration, 882
— mitochondria, nonpolar lipids, fatty acids and phospholipids contents, 882 Potassium cyanide, inhibitor of alcohol dehydrogenase, 444
Pregnancy, effect on ovarian cholesterol esterification and
cholesteryl ester hydrolysis, 815
Pristane, in fish oils, 520
Progesterone, depression by PGF2a in ovary, 791
— in plants, 128
Progesterone-1,2,-9H, metabolism in rat ovary, 791
Progesterone-2da-ol-1,2,-9H, metabolism in rat ovary, 791
Prolactin, effect on hypophysectomized-rat ovary, 791
— luteinizing hormone, corpus luteum, 791
Propanol, as substrate for alcohol dehydrogenase, 444
— in cucumbers, synthesis from unasturated fatty
acids, 351
2-amino-2-methyl-1-Propanol, effect on hydrolysis of chomitochondria, nonpolar lipids, fatty acids and phospholipids contents, 882

TLC of phospholipids from mitochondria, 882

Pig, kidney, glyceryl ether content, 935

triglyceride, phosphatidyl ethanolamine and phosphatidyl choline fatty acid profile, 935

Pig, pancreatic lipase, hydrolysis of lipoproteins, 276

Pig serum, triacylglycerol structures, 965

Pig, spleen, aldehydogenic chain profile of polar lipids, 935

Pigeon, adrenals, cholestanol content, 517 2-amino-2-methyl-1-Propanol, effect on hydrolysis of cho- 2-amino-2-methyl-1-Propanol, effect on hydrolysis of cnolesterol esters, 815
 Properitoneal depot fat, human, fatty acid profile, 212
 2-methyl-2-[p-(1,2,3.4-tetrahydro-1-naphthyl) phenoxyl
 Propionic acid. See SU-18,437
 Propionicacidaemia, hepatic 17-carbon fatty acids, 576
 Proproylebaxene, microbial oxidation, 453
 Prostaglandin E., biological assay, 278
 derived from homo-y-linolenic acid, 278
 identification, 278 Pig. spieen, aidehydogenic chain profile of polar lipids, 935
Pigeon, adrenals, cholestanol content, 517
Pigeon, liver, cholestanol content, 517
Pigeon, ovary, cholestanol content, 517
Pigeon, plasma, cholestanol content, 517
Pigeon, plasma, cholestanol content, 517
Pigeon, testis, cholestanol content, 517
Plants, biosynthesis of cycloartenol, lanosterol and situaterol in, 219
marine, sterola in, 687
steroids in, 128
steroids in, 128
steroids in, 128
steroids in, 129
Plasma, chicken, effect of lipid on clotting time, 139
lipid content, effect of anovulatory drugs on, 693
Plasma, dog, lipoproteins and fat transport, 394
Plasma, human, cholestanol content, 517
collection procedure, 806
esterification of cholesterol in vitro, hyperlipidemia, 722 derived from homo-y-inolenic acid, 278
identification, 278
identification, 278
in rat seminal vesicle gland, 278
spectrophotometric determination, 278
TLC separation, 278

Prostaglandins, effect of oxygen atmosphere on precursor fatty acids, 740
luteolysis and steroidogenesis, 791
regulation of ovarian enzyme activity, 791
Protamine, as inhibitor of post-heparin lipase, 805
Protein content, in rat brain, 458
Protein synthesis, rat liver cells, 609
Protein-lipid oxidation, by free radicals, Schiff base formation, 62
Proteins, amino acids, destruction by free radicals from unsaturated fatty acids, 62
content of salmon liver, 347
molecular weight of from sarcoplasmic reticulum, 357 heparin released lipolytic activities, 805 lecithin:cholesterol acyltransferase reaction, 740 lipoproteins, cholesterol, phospholipids, genetic variation 505 molecular 357 of sarcoplasmic reticulum membrane, 357 penetration of lipid monolayers, 546 peptide mapping of, from sarcoplasmic reticulum, 357 ation, 595 multiple births, genetic variability effects on lipids, 595

— phosphatidyl choline, in hyperlipidemia, 722

— tocopherol, GLC, 35

— tocopherol levels, 35

— triglycerides in hyperlipidemia, 722

Plasma, lamb, fatty acid content, 26

— lipid content, 26

— lipids, effect of diet, 26

Plasma, mouse, effect of SU-13,437 on lipids of, 475

Plasma, pigeon, cholestanol content, 517

Plasma, rat, cholesterol content, 47

— effect of cold stress, dietary fat on corticosterone levels in, 797 synthesis in rat brain from glucose, leucine, 431 C-terminal amino acids of, from sarcoplasmic retic-N-terminal amino acids of, from sarcoplasmic reticulum, 357 ulum, 357 Proteins, serum, inhibitors of cholesterol synthesis, 751
Proteolipid, in rat brain, 458
Protezos, sterol metabolism in, 219
Pseudocomene, microbial oxidation, 453

LIPIDS, VOL. 6, NO. 12

Pseudomonas aeruginosa, alcohol dehydrogenase, inducible,

cyclohexanes, hydroxylation, 487

enzymatic hydroxylation of hydrocarbons, 437
oxidation of hydrocarbons by, 448
PUFA. See fatty acids, unsaturated, poly
Pupae, of mosquito, lipid comp, 867
Pyridine nucleotides, role in cholesterol synthesis in liver, 162

Pyrolysis, 3-acetoxy-1-nonene, 635
—— 4-acetoxy-2-nonene, 635
Pyrophosphate, as inhibitor of post-heparin lipase, 805

Quinone, from a-tocopherol oxidation, 16

Rabbit, liver microsomal metabolism of acyl CoA, 107

muscle dystrophy, bioassay of tocopherol, 281
Rabbit, adrenals, cholestanol content, 517
Rabbit, intestine, cholestanol content, 517
Rabbit, intestine, cholestanol content, 517
Rabbit, inver, cholestanol content, 517
Rabbit, liver, cholestanol content, 517
Rabbit, iver, cholestanol content, 517
Rabbit, resum, cholestanol content, 517
— cholesterol esteric esterification, 815
— homogenates, incubation with 4-4-C-cholesterol, 815
Rabbit, serum, cholestanol content, 517
— cholesterol esters, fatty acid profile, 815
Radiochemical purity, 3H-sterols, 233
Rapeseed oil, fatty acid profile, 415
— induction of mammary tumor in rats, 415
— positional fatty acid profile, 425
— tocopherol content, 291
Rat, adipoge tissue, effect of age and cold acclimation on cell size, 486
— biliary and hepatic phospholipid hydrolysis by phospholipiase A2, 652
— blood glucose effect of SU-13,437, 783
— body weight, effect of SU-13,437, 783
— body weight, effect of SU-13,437, 783
— calorigenic effect of norepinephrine, 486
— cholesterol absorption, effect of 2-monoglyceride, 964
— choline deficiency, 649
— cold-exposed, lipolysis in epididymal fat pads, 274
— comp of diet, fatty acid supplement, 797
— creatinuria, bioassay of tocopherol, 281
— diabetic, incorporation of linoleic and arachidonic acids, 203
— diet, effect on serum and liver lipids, 332

diabetic, acids, 203

acids, 203 diet, effect on serum and liver lipids, 332 diet, effect on serum lipoproteins, 332 effect of dietary fat on mammary cancer, 415 effect of renal factors on hepatic cholesterol synthe-

sis, 751 epididymal fat pads, lipolysis, 274 epididymal fat pads, lipolysis, 274 erythrocyte hemolysis, bioassay of tocopherol, 281 essential fatty acid, deficient, linoleic acid incorpositions.

epididymal fat pads, lipolysis, 274
erythrocyte hemolysis, bloassay of tocopherol, 281
essential fatty acid, deficient, linoleic acid incorporation, 858
fatty acid metabolism, corn oil diet, 388
fatty acid metabolism, fat free diet, 388
fatty acid metabolism, fat free diet, 388
fatty acid metabolism, pydrogenated coronut oil diet, 388
fetal resorption, bloassay of tocopherol, 281
germ-free glyceryl ether comp in brain, 170
hemocrit, normal and fasting, 382
hemocrit effect of SU-13,437, 783
hepolipidemic effect of SU-13,437, 783
hepolipidemic effect of SU-13,437, 783
hipolipidemic effect of such acid into portal vein, 787
injection of labeled fatty acid into portal vein, 787
injection of labeled fatty acid, 100
liver, cholesterol biosynthesis in, 134
liver, lipid extraction from, 203
liver, microsomes and phosphatidic acid synthesis, 88
liver, triglycerides, effect of CCl, 141
liver microsomal metabolism of acyl CoA, 107
liver storage, bloassay of tocopherol, 281
monoenoic fatty acid isomers, EFA deficiency, 831
nephrotic, cholesterol synthesis, 751
tissue distribution of tocopherol derivatives, 318
undernourished, body weight, 431
undernourished, body weight, 431
undernourished, body weight, 431
tocopherol metabolism in, 318
Rat, adreas, cholestanol content, 517
cholesterol esters, response to diet, cold stress, 797
attess and utilization of cholesterol esters, 797
Rat, blood, tocopherol content, 318
Rat, blie, incorporation of fatty acids into phospholipids, 307
Rat, blood, tocopherol content, 518
Rat, blie, incorporation of fatty acids into phospholipids, 307
Rat, blood, tocopherol content, 518

Rat, blood, tocopherol content, 318
Rat, brain, acetic acid incorporation in cholesterol, 154

cell free extracts, sterol metabolism in, 225 cholesterol, synthesis from glucose, 431 cholesterol metabolism in, 225 comp of non-saponifiable lipids, 154 digitonin precipitable of sterols from, 154 distribution of TPNH-oxidase activity in microaugitonin precipitable of sterols from, 154 distribution of TPNH-oxidase activity in microsomes, 297 effect of malnutrition on myelin development and chemical comp, 458 essential fatty acid deficiency, 378 ether lipids comp, 170 fraction into subcellular particles, 154 ganglioside metabolism in, 959 glycolipid, synthesis from glucose, 431 homogenates, aterol metabolism in, 225 in lipids hydrocarbon chain profile, 170 incubation of tissue fractions with labelled metabolistes, 154 isolation of lipids from, 154 isolation of myelin, 458 lipid metabolism, 225 lipids, synthesis from glucose, 431 metabolism, in vivo and in vitro differences in sterols synthesis, 225 metabolism of glucose, leucine, 431 metabolism cacid metabolism in, 225 microsome isolation, 154 mevalonic acid metabolism in, 225 microsome, sterol metabolism in, 225 monoenoic fatty acid isomers, normal, EFA deficient diet, 831 myelination of, 225 non-saponifiable compounds in, 225

diet, 831
myelination of, 225
mon-saponifiable compounds in, 225
phospholipid, synthesis from glucose, 431
phospholipid content in EFA deficiency, 378
prep of myelin, 378
profile of fatty acids from various myelin lipid
classes, 458

classes, 458
proteins, synthesis from glucose, leucine, 431
quantitation of lipid classes in myelin from, 458
saponification of lipids, 154
saponification of lipids, 154
saddium acetate metabolism in, 225
sterol ester metabolism in, 225
sterol ester metabolism in, 225
sterol metabolism, young and adult, 154
sterol metabolism in, 225
sterol metabolism in, 225
sterol metabolism in young and adults, 225
undernourished, weight of, 431
weight changes in EFA deficiency, 378
diet, cholesterol, cholic acid, lard, linoleate, 2-linole

weight changes in EFA deficiency, 378
 Rat, diet, cholesterol, cholic acid, lard, linoleate, γ-linolenate, supplement, 47
 effect of lipid supplements on plasma, liver lipids, 47
 PUFA and tocopherol, peroxidation, 715
 Rat, erythrocytes, hemolysis assay of tocopherol, 297
 indicators of free radical formation in tocopherol metabolism, 297
 inhibition of peroxide hemolysis by tocopherol, 297
 inhibition of peroxide hemolysis by tocopherol, 297

heart, monoenoic fatty acid isomers, normal, EFA deficient diet, 831 peroxidation of lipids of, 715 tocopherol metabolism in, 318 hyposectomized, effect of luteinizing hormone on

ovary, 791

effect of luteinizing hormone on ovary, 791

effect of PGFsa on ovary, 791

effect of progesterone on ovary, 791

Rat, kidney, cholesterol synthesis in subcellular particles of, 751

monoenoic fatty acid isomers, normal, EFA deficient diet, 831 tocopherol content, 318 Rat, liver, acetone powder, role in cholesterol synthesis.

arachidonic acid incorporation, 787 cholesterol, effect of SU-13,437 on, 783 cholesterol and triglyceride content, 47 cholesterol biosynthesis, 957 cholesterol synthesis in subcellular particles of, 751 choline and methionine effects on phospholipid comp, 649

649 conversion of linoleate to arachidonate, 888 conversion of squalene to cholesterol, 162 diet, effect on c-tocopherol and phospholipid alterdiet, 297
dietary influence on lipoprotein synthesis, 332
distribution of TPNH-oxidase activity in micro-

distribution of TPNH-oxidase activity in somes, 297 effect of dietary lipids on lipids of, 47 effect of fasting on lipid content, 332 enzymatic synthesis of cholesterol, 162 fatty acid incorporation into phospholipids, free fatty acids, effect of SU-13,437 on, 783 glucose, conversion to lipid, 332 glucose feeding, effect on lipids of, 332 glycogen, effect of SU-13,437 on, 783 glycogen content, effect of fasting, 332

incorporation of arachidonic acid into 1,2-diglycerides, 203 incorporation of arachidonic acid into phospholipids, 203 incorporation of fatty acids into phospholipids, 307 incorporation of linoleic acid into 1,2-diglycerides, zus incorporation of linoleic acid into phospholipids, 203 insulin, effect on fatty acid incorporation, 203 insulin, effect on phospholipid synthesis, 203 insulin, effect on fatty acid incorporation, 203 insulin, effect on phospholipid synthesis, 203 isolation of free cells, 601 isolation sterol carrier protein from, 162 linoleic acid incorporation, 787 linoleic acid incorporation, 787 linoleic acid metabolism, EFA deficiency, 858 linolence acid incorporation, 787 lipid content, 332 lipoprotein synthesis, 332 microsomal membrane phospholipids, unsaturated fatty acids, 297 microsomes, prep from, 297 microsomes, prep from, 297 microsomes, Leglyceraldehyde isomerization by, 330 microsomes, incubation with labeled fatty acids, 873 perfusion with labeled fatty acids, 873 perfusion with labeled fatty acids, 888 peroxidation of lipids of, 715 phosphatidic acid synthesis by microsomes, 388 phospholipids effect of SU-13,437 on, 783 positional incorporation of unsaturated fatty acids in phospholipids effect of SU-13,437 on, 783 positional incorporation of unsaturated fatty acids in phospholipids of, 787 removal of Kupffer cells from, 601 specific activity ratios 34/14°C fatty acids, 203 sterol metabolism, 225 tocopherol metabolism in 318 a-tocopherol and alterations in phospholipids of microsomes, 297 tocopherol metabolism in, 318
a-tocopherol and alterations in phospholipids of microsomes, 297
total lipids, effect of SU-13,437 on, 783
transport of triglycerides in EFA deficiency, 388
triglyceride synthesis, 203
triglycerides, effect of SU-13,437 on, 783
Rat, lung, monoenoic fatty acid isomers, normal, EFA deficient diet, 831
Rat, mammary gland, adenocarcinoma, induced by 7,12-dimethylbenz(a)anthracene, 415
phospholipids, 844
Rat, mammary tissue, turnover of dietary cholesterol, 645
Rat, microsomes, desaturation by from several tissues, 567 milk, phospholipids, 844 turnover of dietary cholesterol, 645 muscle, distribution of TPNH-oxidase activity in microsomes, 297 Rat, muscle, distribution of TPNH-oxidase activity in microsomes, 297
Rat, ovaries, tocopherol metabolism in, 318
Rat, ovary, cholesterol ester metabolism, 791
cholesterol ester aynthetase activity, 791
cholesterol ester synthetase activity, 791
effect of PGFac on lipids, progesterone, 791
Rat, plasma, cholesterol content, 47
effect of cold stress, dietary fat on corticosterone levels in, 797
effect of dietary lipids on lipids of, 47
Rat, seminal vesicle gland, prostaglandin En, 278
Rat, serum, cholesterol, effect of SU-13,437 on, 783
cholesterol ester content, fasting, 332
effect of fasting on lipids of, 332
effect of fasting on lipids of, 332
free fatty acide, effect of SU-13,437 on, 783
glucose feeding, effect on lipids of, 332
lipoproteins, 332
phospholipids, effect of SU-13,437 on, 783
triglyceride, effect of SU-13,437 on, 783
triglycerides, effect of SU-13,437 on, 783
triglyceride content, fasting, 332
triglycerides, effect of SU-13,437 on, 783
turnover of dietary cholesterol, 645
Rat, skeletal muscle, sarcoplasmic reticulum, 857
tocopherol content, 318
Rat, spleen, tocopherol content, 318 Rat, asterna muscle, sarcopasmic reciculum, sor
tocopherol content, 318
Rat, apleen, tocopherol content, 318
Rat, testis, fatty acid content, 706
fatty acid synthesis in, 706
incorporation of 1-34C-acetate into fatty acids of,

706

708

708

incubation medium for fatty acid synthesis, 706

weight, 706

Recrystallization, of sterols in methanol, acetone, 957

Red blood cells. See erythrocytes

Ressterification, of FFA in rat epididymal fat pads, 274

Renail. See kidney

Respiration, and mitochondrial lipids as substrates, 882

Review, functions of sterols in plants, 128

sterols in various algae, 120

Rhizopus arrhizus, extracellular lipase, 276

Rice, tocopherol content of seeds, 291

Ricinoleic acid, conversion to 10-12-dihydroxyoctadecanoic acid by bacteria, 745

in Linum mucronatum, 962
 in oilseeds of Linum mucronatum, 962
 Rust, Puccinia graminis tritici, infection of wheat, formation of epoxystearate, 581
 Rye, tocopherol content of seeds, 291

S

Safflower oil, tocopherol content, 291
Salmo gairdneri, cyclopropenoid fatty acids in tissue lipids, 426
— fatty acid metabolism, 426
Salmon, starvation, hepatic lipogenesis, 347
— starvation, triglyceride synthesis, cholesterol esters, 347 Salmon, liver, homogenates, incubation with ¹¹C-acetate, ³⁴⁷ 347
lipid, protein water content, 347
lipid content, 347
lipid content, 347
TLC of lipids, 347
triglycerides, starvation, hepatic lipogenesis, 347
Salmon, spawning, hepatic lipogenesis, triglyceride synthesis, 347
Sand launce, pristane content of oil, 520
Sapindacea seed oils, cyanolipids of, 349
Saponification, of diacylglyceryl ethers and wax esters, 341 341
of fatty acid methyl esters, 919
reaction mechanism, kinetics, 919
Saponification number, low values for in alcoholic solu-Saponification number, low values for in alcoholic solution, 919
Sarcina flava, hydrocarbon profile, 190
Sarcina lutea, hydrocarbon profile, 190
Sarcoplasmic reticulum, lipid structure and Ca** transport, 357
— lipoproteins and Ca** transport, 357
protein structure and Ca** transport, 357
Sarcosomes, heart, peroxidation of lipids of, 715
Sarcotubular membranes, lipid structure and Ca** transport, 357
— lipoproteins and Ca** transport, 357
— lipoproteins and Ca** transport, 357 Sarcotubular membranes, lipid structure and Ca++ transport, 357
lipoproteins and Ca++ transport, 357
protein structure and Ca++ transport, 357
Schiff base, fluorescence-lipid-protein oxidation, 62
Schleichera trijuga, seed oil, cyanolipids, 349
Schottend, GLC anal, 166
— requirement by D. pachea for growth, 166
Scintillation counting, liquid, **P-phospholipids from milk, 844
Sebacate esters, mass spectra, gas-liquid and thin-layer chromatography, 523
Seed oil, Limnanthes douglasii, fatty acid profile of, 98
— Limnanthes douglasii, phenyldichlorophosphate in anal of glycerides from, 93
— Limnanthes douglasii, phosphatidyl phenols from diglycerides of, 93
— Limnanthes douglasii, streeospecific anal of triglycerides from, 93
Seed oils. See oilseeds
Scenimal with the seed of the seed oils. See oilseeds
Scenimal vesicle gland, rat, prostaglandin En content, 278
Scenime, role in autoxidation of methyl linoleate emulsions, 196
Serum, dog, cholestanol content, 517 Serum, human, cholesterol esters, fatty acid profile, 815

— lipid extraction, 836
— sterols of, 836
Serum, lipoproteins, human, triglyceride transport, 369
Serum, lipoproteins, human, triglyceride transport, 369
Serum, rabbit, cholestanol content, 517
— cholesterol esters, fatty acid profile, 815
Serum, rat, cholesterol content, fasting, 332
— cholesterol ester content, fasting, 332
— cholesterol ester content, fasting, 332
— effect of SU-13,437 on cholesterol, 783
— effect of SU-13,437 on phospholipids, 783
— effect of SU-13,437 on phospholipids, 783
— effect of SU-13,437 on triglycerides, 783
— free fatty acid content, fasting, 332
— glucose feeding, effect on, 332
— lipid content, 332
— lipid content, 332
— phospholipid content, fasting, 332
— phospholipids, contribution to milk, 844
— triglyceride content, fasting, 332
— phospholipids, contribution to milk, 844
— triglyceride content, fasting, 332
— turnover of dietary cholesterol, 645
Serum lipoproteins, C-terminal amino acid comp, 369
— flotation rates, density, class, 369
— in transport systems, a review, 369
— N-terminal amino acid comp, 369
— pig, hydrolysis by lipase, 276
Serum proteins, effects on hepatic cholesterol synthesis, 751
Sesame oil, tocopherol content, 291 Sesame oil, tocopherol content, 291

Sex hormones, effect on rat's and human lipid metabolism, 693
Sheep, effect of age on comp of liver phosphol'pids, 926
Sheep, liver, phospholipid, fatty acid profile, 926
Sheep, newborn, liver phospholipid comp, 926
Sheep, newborn, liver phospholipid comp, 926
Sheepshead, pristane content of oil, 520
Sialie acid, anal of rat brain gangliosides, 959
Sinapis alba, chloroplast sterols, 215
Sitoaterol, biosynthesis of in plants, 219
\$\textit{\textit{Bitosterol}}\$, content of various species of orange, 826
in chloroplasts, 215
in human serum, identification of, 836
in marine plants, 687
mass spectra, 836
metabolism in T. pyriformis, 149
mobility, silica gel-silver nitrate TLC, 836
retention index GLC, on OV-1, OV-17, 836
synthesis of \$\frac{3}{4}\text{-labeled compound}\$, 233
Skeletal muscle, rat, sarcoplasmic reticulum, 357
tocopherol content, 318
Skim-mills, phospholipids of, 844
Skin lipids, of newborn, branched chain fatty acids, 901
Slime mold, alkyl ether profile, 466
biosynthesis of alk-l-enyl and alkyl glycerolipids, 470
fatty aldehyde profile, plasmalogens, 466
phospholipid profile, 468
Snake venom, hydrolysis of phospholipids from boll weevil, 352
Sodium, metallic, use saponification of fatty acid esters, 919 sterols of human serum, 836 sterois of numan serum, sae
wax ester, 502
Spectra, mass-gas-liquid-chromatography, fatty acids, 712
fragmentation mechanism of hydrocarbons, 190
of chloroplast aterols, 215
of mushroom fatty acids, 176
of trimethylsilyl ethers of hydroxylated hydrocarbons, 190 bons, 190

Spectra, nuclear magnetic resonance, cyanolipid, 349

epoxy fatty acids, 617

linoleic acid, 1

methyl 12-hydroxystearate, 962

1,3-nonadiene, 635

2,4-nonadiene, 635

of aldehydes, 961

tocopherol, 1

tocopherol linoleic acid adducts, 1

tocopherol derivatives, 1

Spectra, optical rotatory, of methyl 12-hydroxystearate, 962

Spectra, ultraviolet, absorbed limit or allies of Spectra, ultraviolet, absorbed lipid on silica, 9
cholesta-4,6-dien-3-one, 836
cholesta-4-en-one, 836
β-eleostearic acid absorbed on silica, 9
fluorescent lipids from bovine brain, 670
Halphen pigment, 426
2,4-hexadienol absorbed on silica, 9
lipid monolayers adsorbed on silica, 9
1,3- and 2,4-nonadienes, 636
saturated and unsaturated hydroxy fatty esters, 745
a-tocopherol aridatives, 13
unsaturated carbonyl compounds absorbed on silica, 9
tocopherol derivatives, 1
unsaturated carbonyl compounds absorbed on silica, 9 ım, metallic, use saponification of fatty acid esters, 919 Sodium. 919
Sodium acetate, incorporation into brain, 225
Sodium alkyl aryl sulfonate, electrical discharge induced, 186
Sodium cyanide-11C, in synthesis of labeled unsaturated fatty acids, 889
Sodium dodecyl sulfate, solubilization of sarcotubular membranes, 357
Sodium fluoride, role in triglyceride synthesis, 326
Sodium hydroxide, use saponification of fatty acid esters, 919 Spectrometry, mass, high resolution of diol lipids, 492 Spectrophotometric analysis, of tocopherols, 245 Spermatophytes, marine, content of sterols, 687 Sphinganine. See sphingosine Sphinganine. See sphingosine
4-Sphinganine, nomenclature, 862
Sphingolipids, anal after TLC using TNBS, 254
— anal of long chain base, 264
— in mosquito eggs, larvae, pupae, adults, 867
— metabolism in housefly, microsomal fraction, 508
— methanolysis with boron trifluoride, 254
— phosphatidyl ethanolamine and phosphatidyl serine, interference in anal of, 254
Sphingomyelin, anal using trinitrobenzene sulfonic acid, 254 919
Sodium nitride, inhibitor of alcohol dehydrogenase, 444
Solanum tuberosum, chloroplast sterols, 215
Say lecithin, effect on hydrolysis of cholesterol esters, 815
Soybean oil, fatty acid profile, 415
induction of mammary tumor in rats, 415
Specific rotation, enantiomeric glycerides, 692
Spectra, visible, TNBS derivatives of cerebroside, 254
Spectra, electron paramagnetic resonance, free radicals from lipid-protein oxidation, 62
Spectra, excitation and fluorescence, lipids from bovine brain, 670 254
fatty acid profile, sheep liver, 926
in boll weevil, 352
in bovine thyroid, microsomes and mitochondria, 661
in cartilage, 314
in cystacanths, 763
in human mucus, 859
in krill and red crabs, 481
in rat brain, 458
in rat heart mitochondria, 882
in sheen liver, 996 Spectra, excitation and nuorescence, lipids from bovine brain, 670

Spectra, fluorescence, lipid-protein oxidation, Schiff base formation, 62

of fatty acid peroxidation products, 715

products of lipid peroxidation, 172

Spectra, infrared, cyanolipid, 369

cystacanth lipids, 763

methyl problikants, 999 cystacanth lipids, 763
methyl arachidonate, 889
methyl-docsa-7,10,13,15-tetraenoate, 889
methyl-locosa-7,10,13,15-tetraenoate, 889
methyl 12-hydroxystearate, 962
methyl suberaldehydate, 758
1,3-nonadiene, 635
2,4-nonadiene, 635
of esters of long chain alcohols and fatty acids, 421
of tetradec-1-ene, 6:448
of tetradec-1-ene, 6:448
of tetradec-1-ene, 6:448
of tetradec-1-ene, 448 in sheep liver, 926 synthesis by mouse brain particulate fraction, 682 synthesis in leukocytes, 895 synthesis by mouse brain particulate fraction, 682
synthesis in leukocytes, 895
Sphingosine, anal using trinitrobenzene sulfonic acid, 254
nomenclature, 862
Spinacia oleraces, chloroplast sterols, 215
a-Spinasterol, in chloroplasts, 215
Spleen, lpid extraction, 935
Spleen, pig, fatty aldehydes profile of polar lipids, 935
Spleen, pig, fatty aldehydes profile of polar lipids, 935
Spleen, rat, tocopherol content, 318
Sporophore, lipid content, 176
Squalene, content in human serum, 369
— conversion to tetrahymanol in T. pyriformis, 149
— in cholesterol biosynthesis, 162
— metabolism in rat brain, 154
— nonoxidative cyclization of in T. pyriformis, 149
— origin and role of in sterol metabolism, 219
Stearie acid, biosynthesis in plants, 266
— desaturation by rat liver microsomes, 873
1.1-1C, desaturation of, 78
— electrical discharge induced insolubilization, 186
formation by free radicals, 181
— in beef heart diphosphatidyl glycerol, 260
— methyl ester, mass spectra, 906
stereolsomeric forms of, purification, 78
— stereolsomeric forms of, synthesis, 78

tritiated, desaturation of, 78
1.-1-1-1-Stearle acid, incorporation into milk glycerides, 777
Stearolic acid, methyl ester, mass spectra, 906 of tetradeca-l-ene, 6:448
of tetradecan-2-one, 448
of tetradecan-2-one, 448
of trans fatty acid methyl esters, 912
polymerized stearic acid, 186
stearic acid, 186
sulfolipids, 40
tocopherol derivatives, 1
tocopherol-linoleic acid adduct, 1
unsaturated hydroxy acids, 745
Spectra, mass, aldehyde esters, 758
alk-1-enyl ether esters of ethanediol, 492
alkyl ether esters of ethanediol and 1,3-propanediol, 492 492 campesterol, β-sitosterol, stigmasterol from marine plants, 687
5α-cholestan-3β-ol of pigeon testis, 517
combined with GLC, anal of lipoxygenase products, 100
deuterium labeled fatty acids, 912
diol ethers, 727
cis-9,10-epoxyoctadecanoic acid containing ¹⁸O, 581
field ionization of methyl esters of fatty acids, 906
1,3-nonadiene, 635
2,4-nonadiene, 635
of branched chain fatty acids, 901
of methyl esters of fatty acids, 906
of trimethylsilyl ether of methyl 12-hydroxystcarate,
962 tritiated, desaturation of, 78

1-14C-Stearic acid, incorporation into milk glycerides, 777

Stearolic acid, methyl ester, mass spectra, 906

synthesis from oleic acid, 912

Stearolic acid-1-14C, prep of from 1-14C oleic acid, 541

Stearoly phosphatidyl ethanolamine, separation from palmitoyl phosphatidyl ethanolamine, 355

Stearoyl-CoA, tritium labeled, desaturation of, 78

Sterculate, methyl, iodination, 623

Sterculate acid, inhibition of dehydrogenase activity in plants, 266

methyl ester, accumulation in tissues of trout, 426 962 362 saturated and unsaturated hydroxy fatty esters, 745 schacate esters, 523 sterol identification, 134 sterols from oranges, 826

Stereospecific analysis, human triglycerides, 854

— Limnanthes douglasis seed oil triglycerides, 93

of maize triglycerides, 525, 531

of triglycerides, a review, 942

Stereospecificity, fatty acid hydratase, 541

Steroid hormones, in plants, 128

Steroil dentification, mass spectrometry, 134

— Symposium, beginning on page 113, 149, 215

Sterol carrier protein, in cholesterol biosynthesis, 162

Sterol esters, content of various species of oranges, 826

— from Citrus, fatty acid profile, 554

— glucoside, from Citrus, 554

— in rat brain, 225

— methyl esters prep, 919

Sterol glucosides, in oranges, 826

Sterol glucosides, in oranges, 826

Sterol glucosides, esterified, in oranges, 826

Sterol glucosides, esterified, in oranges, 826

Sterols, acetylated, GLC, 215

aza, see azasterols, 113

biosynthesis in plants, 128

biosynthesis, review, 219

biosynthesis, regulating mechanism, 219

biosynthesis in D. pachea, 166

chloroplasts, 215

column chromatography of, 957

content in marine spermatophytes, 687

control of biosynthesis of, 219

dehydrogenation and dealkylation by T. pyriformis, 149

distribution in citrus vesicles, 826 dehydrogenation and dealkylation by *T. pyriformis*, 149
distribution in citrus vesicles, 826
distribution of various, in red, green and brown algae, 120
formation in rat brain, 225
functions in plants, 128
GLC of, 233
in human serum, function of, 836
in krill and red crabs, 481
in microorganisms, 128
in mushrooms, 176
in rat brain, bissynthesis of, 154
in rat brain, metabolism, 154
in rat brain, precipitable by digitonin, 154
inhibition of tetrahymanol biosynthesis by in *T. pyriformis*, 149
inhibitory effect of azasterols on the metabolism of, 113 113
metabolism, geraniol in, 219
metabolism, isopentenyl pyrophosphate in, 219
metabolism, mevalonic acid in, 219
metabolism, rat brain, after injection of mevalonic metabolism, rat brain, after injection of mevalonic acid, 225
metabolism, squalene in, 219
metabolism in blue-green algae, 219
metabolism in fish, 219
metabolism in planta, 128, 219
metabolism in protozoa, 219
metabolism in Tetrahymena pyriformis, 219
purification by recrystallization, 957
synthesis of trimethylsily ethers, 836
TLC of, 233
tritium labeled, purification of, 233
tritium labeled, radiopurity, 233
Sterols, conjugated, in oranges, 826
Sterols, free, in oranges, 826
Stigmasta-5,7,22-trien-3β-ol, metabolism in T. pyriformis, 7-Stigmasten-3β-ol. See schottenol
Δ*-Stigmastenol, in chloroplasts, 215
Stigmasterol, content of various species of orange, 826
in chloroplasts, 215
in marine plants, 687
metabolism in T. pyriformis, 149
synthesis of *H-labeled compound, 233
Stress, cold, rat advanal chloresterol esters, diet and fatty acid profile, 797
cold, rat advanal chlorotenol synthesis of "H-labeled compound, 253
Stress, cold, rat adrenal cholesterol esters, diet and fatty acid profile, 797
cold, rat adrenal cholesterol esters, fatty acid profile, 797
SU-13,437, compared to clofibrate, 475
effect on "4C-glucose incorporation into lipids, 475
effect on "4C-glucose incorporation into lipids, 475
effect on liver lipids, mouse, 475
effect on liver lipids of rats, 783
effect on plasma lipids, mouse, 475
effect on pasma lipids, for rats, 783
hypolipidemic drug, 475
Subeclular fractions, of mosquito, phospholipids, 867
Sucrose, in density gradient centrifugation of sarcoplasmic reticulum, 357
Sulfatide, hydroxy fatty acids of rat brain, 458
Sulfhydryl groups, effect of oxygen atmosphere, in vivo. 740 Sulfolipid, desulfation in mycobacteria, 40

IR spectra, 40

Mycobacterium tuberculosis, 40

TLC, 40

Sunflower oil, fatty acid profile, 415
— induction of mammary tumor in rats, 415
— tocopherol content, 291 Surface pressure, measurement of, 546
Surfactant, porcine lung, lipid comp, 625
Swine. See pig
Swine, adrenal, cholesteryl esters, fatty acid comp, 624

Tallow, fatty acid profile, 415
— induction of mammary tumor in rats, 415
Taurocholic acid, sodium salt, effect on hydrolysis of cholesterol esters, 815 lesterol esters, 815

Taurodeoxycholic acid, use in lipase assay, 805

Terminal chain elongation, of fatty acids, apparatus, 181

Testes, chicken, influence of vitamin E and ethoxyquin on fatty acid profile, 657

Testes, rat, fatty acid synthesis, 706

Testcular fatty acids, incorporation of "C-acetate into, 702. 706
— rats, in vitro and in vivo synthesis, 706
Testicular lipids, rats, 706
Testis, chicken, cholestanol content, 517
Testis, pigeon, content of cholestanol, 517
Testis, rat, fatty acid content, 706
— incorporation of 1 14C-acetate into fatty acids of, Testis, rat, fatty acid content, 706

— incorporation of 1¹⁴C-acetate into fatty acids of, 706

— incubation medium for fatty acid synthesis, 706

— weight, 706

— trans, or the ster, synthesis, 641

— trans, methyl ester, synthesis, 641

— trans, synthesis, 641

— trans, synthesis, 641

— trans, synthesis, 641

— trans, synthesis, 641

Tetradec-lene, IR spectra, 448

Tetradecan-2-one, IR spectra, 448

Tetradecane, oxidation by microorganisms, 448

Tetradecane, oxidation by microorganisms, 448

Tetradecane, oxidation by microorganisms, 448

Tetradecane, acidation by microorganisms, 448

Tetradecane, oxidation by microorganisms, 448

Tetradecyl dodccanacit, crystal structure, 421

Tetradecyl dodccanacite, crystal structure, 421

Tetradecyl dodccanacite, crystal structure, 421

Tetradecyl exadecanacite, crystal structure, 421

Tetradecyl exadecanacite, crystal structure, 421

Tetradecyl tetradecanacite, crystal structure, 421

Tetradecyl tetradecanacite, crystal structure, 421

Tetradetyl lead, free radical formation from, 181

Tetrahymanol, biosynthesis by sterols, 149

— inhibition of biosynthesis by sterols, 149

— synthesis from squalene in T. pyriformis, 149

Tetrahymena pyriformis, cholesterol metabolism, 149

— sterol metabolism in, 219

Tetralin, microbial oxidation, 453

Thromboplastic activity, of phospholipids plus cholesterol, 139

Thunbergia alata, fatty acid profile of seed oil, 712 Thromboplastic activity, or proappoint plans choice etc., 139
Thunbergia alata, fatty acid profile of seed oil, 712
Thyroid, bovine, lipid comp. 661
Tissue culture, tobacco, fatty acid profile, 684
TLC. See chromatography, thin-layer
Toad, liver, distribution of TPNH-oxidase activity in TLC. See chromatography, thin-layer
Toad, liver, distribution of TPNH-oxidase activity in microsomes, 297
Toad, muscle, distribution of TPNH-oxidase activity in microsomes, 297
Toado, muscle, distribution of TPNH-oxidase activity in microsomes, 297
Tobacco, seedling, fatty acid profile, 684
Tobacco hornworm, inhibition of sterol metabolism in, by azasterols, 113
Tocopherol, GLC, human plasma, 85
human plasma levels, 35
linoleic acid adduct, IR spectra, 1
linoleic acid adduct, IR spectra, 1
linoleic acid adduct, UV spectra, 1
symposium, beginning on page 238, 281
Tocopherol dimer, metabolism in rat, 318
Tocopherol dimer, metabolism in rat, 318
Tocopherol dimer, metabolism of, 318
effect of dict on metabolism of, 318
effect of dict on metabolism of, 318
c-Tocopherol, alkylation reactions, 240
and linoleic acid, autoxidation of mixed monolayer on silica, 16
as dictary antioxidant in rats, 715
benozyl peroxide oxidation of, 240
biopotency of isomera, 281
content in human serum, 369
cyclization by oxidation, 240
determination using labelled substrate, 297
diasobisisobutyronitrile oxidation of, 240

LIPIDS, VOL. 6, NO. 12

enzyme system for metabolism of, 297 ethers, ultraviolet spectra, absorbed on silica, 9 formation of metabolites from by TPNH-oxidase, Triacylglycerol, linoleic acid incorporation, EFA defi-ciency, 858 Triacylglycerol, linoleic acid incorporation, EFA deficiency, 858

— pig adipose tissue and serum structures, 965

Tridecanol, as substrate for alcohol dehydrogenase, 444

Triglyceride cycle, role of phospholipids, 394

Triglycerides, accumulation, liver, 394

— arachidonic acid incorporation, 807

— castor bean, synthesis in oil droplets, 851

— chromatography of, from dolphin, 69

— comp of M. concanensis by enzymatic hydrolysis and GLC, 666

— content in human serum, 369 ethers, ultraviolet spectra, absorbed on silica, 9
formation of metabolites from by TPNH-oxidase,
297
free radical from, by TPNH-oxidase, 297
function in biological systems, 297
halogenation reactions, 240
International Standard, 281
International Unit, 281
metabolic action, review, 281
metabolic action, review, 287
normal oxidation, review, 287
normal oxidation product, 287
oxidation product, 287
oxidation product, ultraviolet spectra, adsorbed on silica, 16
oxidation product, ultraviolet spectra while adsorbed on silica, 16
oxidation product, ultraviolet spectra while adsorbed on silica, 16
oxidation product, ultraviolet spectra while adsorbed on silica, 16
oxidation product, ultraviolet spectra while adsorbed on silica, 16
oxidation products, ultraviolet spectra while adsorbed on silica, 16
oxidation products, ultraviolet spectra while adsorbed on silica, 16
oxidation products, ultraviolet spectra while adsorbed on silica, 16
oxidation products, ultraviolet spectra while adsorbed on silica, 16
oxidation products, ultraviolet spectra while adsorbed on silica, 16
oxidation products, ultraviolet spectra while adsorbed on silica, 16
oxidation products, ultraviolet spectra while adsorbed on silica, 297
phosphorylation reactions, 240
synergistic action of isomers, 281
conversion to quinone in rat, 318
diastereoisomers, exerction and reabsorption, biological activity, review, 291
biopotency of isomers, 281
encephalomalacia, 281
encephalogiam, 318
new standard for vitamin E bioassay, 281
review of biological activity, 281 GLC, 666
content in human serum, 369
content rat serum, liver, 332
double bond position, effect on synthesis by mammary gland, 777
during growth in Glomerella cingulata, 856
effect of double bond position on synthesis, 777
effect of Ccis-trans isomer on synthesis, 777
effect of CCIs on rat liver, 141
enzymatic hydrolysis by post-heparin plasma, 805
fatty acid inhibition of synthesis in mammary gland,
777 fatty acid metabolism in rat liver, 307 fatty acid profile, fungi, during aging in fungus, fatty acid profile, fungi, during aging in fungus, 856 fatty acid profile of, from dolphin, 69 fatty acid profile of sea anemone, 341 fatty acid profile of sea anemone, 341 fatty acid synthesis in rat testis, 706 feeding of rats, effect on serum lipoprotein synthesis by rat liver cells, 609 fish, incorporation of U-³⁴C oleate, 562 fish, metabolism, half-life, 562 from Citrus, fatty acid profile, 564 gel-permeation chromatography of triglycerides containing isovaleric acid, 674 GLC of triglycerides containing isovaleric acid, 674 human, adipose tissue, fatty acid profile, 854 human, ahterosclerotic plaques, 854 human, heart muscle, fatty acid profile, 854 human, liver, fatty acid profile, 854 human, liver, fatty acid profile, 854 human depot fat, fatty acid profile, 212 in human mucus, 859 in lamb plasma, 26 in mosquito larvae, 867 in mushrooms, 176 in pig serum lipoprotein, hydrolysis by lipase, 276 incorporation of fatty acids in rat liver, 787 incorporation of fatty acids in rat liver, 787 incorporation of 1-34C-oleyl CoA in castor bean, 851 cis-frans isomers, effect on synthesis by mammary gland, 777 isovaleric acid, incorporation, 307 metabolism, 318
metabolism, 318
new standard for vitamin E bioassay, 281
review of biological activity, 281
a-Tocopherol nicotinate, metabolism, 318
d,1-3,4-3H-a-Tocopherol nicotinate, oral administration, a,1-3,4-3-1,2-a-copherol nicotinate, oral administration,
318

\$\textit{B}_0\$-Tocopherol, occurrence in foods, 291

\$\textit{A}_1\$-copherol, occurrence in foods, 291

\$\textit{A}_1\$-copherol, occurrence in foods, 291

\$\textit{A}_2\$-copherol, occurrence in foods, 297

Tocopherols, anal, 245

\$\textit{A}_1\$-copherol, 297

Tocopherols, anal, 245

\$\textit{C}_2\$-chemical reactions of, 240

\$\textit{A}_2\$-chemical reactions of, 240

\$\textit{A}_2\$-chemical reactions of, 240

\$\textit{C}_2\$-chemical reactions of, 240

\$\textit{C}_2\$-chemical reactions of, 240

\$\textit{C}_2\$-column chromatographic anal, 245

\$\textit{C}_2\$-content in food, fat, a review, 291

\$\textit{C}_2\$-content of vegetable oils, 291

\$\textit{C}_3\$-content of vegetable oils, 291

\$\textit giand, 777 isovaleric acid, 674 linoleic acid incorporation, 307 liquid scintillation counting of ¹⁴C-palmitic labelled, 326 liver, incorporation of linoleic acid into, rat, 858 liver, linoleic and arachidonic acid incorporation, 203 metabolism, liver, rats, corn oil diet, 388 metabolism, liver, rats, fat free diet, 388 metabolism, liver, rats, hydrogenated coconut oil diet. 388 metabolism, serum, rats, corn oil diet, 388 metabolism, serum, rats, fat free diet, 388 metabolism, serum, rats, hydrogenated coconut oil metabolism, serum, rats, fat free diet, 388
metabolism, serum, rats, fat free diet, 388
metabolism serum, rats, hydrogenated coconut oli
diet, 388
metabolism in fungi, 856
metabolism in fungi, 856
metabolism in fungi, 856
metabolism in milk, serum, 844
metabolism in mouse, effect of SU-13,437, 476
molecular species of rat liver, 141
of beluga whale (Delphinapterus leucas) blubber and
melon oils, 674
of hornet larvae, fatty acid profile, 850
of Thunbergia alata, 712
palm-kernel, fatty acid profile, 630
pig adipose tissue, structure fatty acid profile, 965
pig heart mitochondria, 852
pig serum, structure fatty acid profile, 965
positional isomers in pig kidney, 935
rat liver content, 47
salmon, liver, starvation, hepatic lipogenesis, 347
stereospecific anal, 942
stereospecific anal, 942
stereospecific namenclature, 942
structure, rat liver, 141
subcellular localization of synthetase activity, mammary gland, 326
synthesis, assay system, 326
synthesis, starvation, spawning salmon, 347
synthesis, starvation, spawning salmon, fat mobilization, 347
synthesis from acetate in salmon liver, 347
synthesis in bovine mammary synthesis, 777 - liquid scintillation counting of *H-labelled esters, 318
- a, β, γ method for anal, 245
- natural isomers, occurrence in plants, 291
- oxidation by inorganic reagents, 240
- paper chromatographic anal, 245
- quantitative anal, 245
- quentitative anal, 245
- review of recent developments, 238
- role in nutrition, 238
- role in nutrition, 238
- spectrophotometric anal, 245
- substituted esters, retention time on GLC, 245
- synthesis of derivatives from, 240
- thin-layer chromatographic anal, 245
- trimethylsilylethers, retention time on GLC, 245
- d,1-a-Tocopheryl-1',2'-Hs acetate, oral administration, 318
- a-Tocordienol, occurrence in foods, 291
- Tocotrienol, snal, 245
- 3-m-Tolylparaffins, microbial oxidation, 453
- Tomato, tocopherol content, 291
- TPNH-oxidase, assay system, 297
- metabolism of actocopherol, 297 TPNH-oxidase, assay system, 297
— metabolism of a-tocopherol, 297
Transseterification, in basic or acidic solution, 919
— of fatty acid esters, 919

- synthesis in mammary tissue, 326
 synthesis in oil droplets of castor bean, 851
 synthesis in rat, goat milk, 844
 synthesis in rat liver microsomes, 930
 TLC of triglycerides containing isovaleric acid, 674
 transesterification of, 919
 trout, cyclopropenoid fatty acids in, 426
 wheat, stereoanalysis of fatty acids, 768
 Triglycerides, maize, stereospecific anal, 525
 use of pancreatic lipase in anal, 525
 use of phospholipase A (king cobra venom), 525
 Trilinolein, transesterification of, 919
 1,2,3-Trimethylbenzeme, microbial oxidation, 453
 Trimethylsilylethers, methyl hydroxyacids, gas chromatographic anal, 144
 Trinitrobenzene sulfonic acid, for anal of sphingolipid, 254
- Trinitrobenzene sulfonic acid, for anal of sphingolipid, 254
 Triolein, cholesterol absorption, rat, 964
 —radiolabeled use in lipase assay, 805
 Triparanel, inhibition of sterol synthesis, 219
 Triphenylmethyl chloride, protective reagent synthesis of diacyl-sn-glycerols, 734
 Tris (6-acetoxy-5-methylenoxy-7,8-dimethyltocol) phosphate, 240 Tris (9-action) -3-metaly lenses, 1240

 Tris (2,2,5,7,8-pentamethyl-6-chromanol) phosphate, synthe-
- Tris(2,2,5,7,8-pentamethyl-6-chromanol)phosphate, synthesis, 240

 Tritium, exchange-labeling, steroids, 233

 in water, desaturation assay, 78

 labeled \(^\Delta\)-steroids, prep, 233

 Triton-X, use in lipase assay, 805

 Trout, liver, cyclopropenoid fatty acids in, 426

 Trout, muscle, fatty acid profile, 426

 Trout, rainbow, cyclopropenoid fatty acids, feeding, 426

 fatty acid profile, 426

 Tullibee, pristane content of oil, 520

 Tumor, brain, cholesterol biosynthesis in, 184

 rat mammary gland, effect of dietary fat, 415

Ultracentrifugation, of proteins from sarcoplasmic reticulum, 357
1,11-Undecanediol, occurrence in wheat wax, 641
Undecanel, as substrate for alcohol dehydrogenase, 444
Unsaturated carbonyls, lipids, reaction with albumin, 172
Unsaturated fatty acids. See fatty acids, unsaturated
Urea, effect on protein-monolayer interaction, 546

n-Valeric acid, corona discharge induced reactions, 186
Vegetable oils, fatty acid profile, 942
— tocopherol content, 291

Vernix caseosa, structure of branched chain fatty acids, 901

Very low density lipoproteins, metabolism, 369

Vesp orientalis, fatty acid profile of larvae, 850

Vitamin A, content in human serum, 369

Vitamin E, and chicken fertility, 657

as biological antioxidant, 147

nomenclature, 281

See a-tocopherol

W

- Walnut, tocopherol content, 291
 Walnut oil, tocopherol content, 291
 Water, content of salmon liver, 347
 Wax, spring wheat leaf, 641
 Wax esters, anal by mass spectroscopy, 502
 chromatography of, from dolphin, 69
 deuterated, mass spectra, 562
 fatty acid profile of, from dolphin, 69
 fatty acid profile of sea anemone, 341
 fatty alcohol profile of sea anemone, 341
 fatty alcohol profile of sea anemone, 341
 fish, fatty alcohol, from U-MC oleate, 562
 fish, in roe, 562
 fish, in roe, 562
 fish, metabolism, half-life, 562
 fragmentation pattern in mass spectroscopy, 502
 in Acanthocephala, 763
 in Vernix caseosa, 901
 infrared spectra, melting point, x-ray diffraction, 421
 mass spectra, 562 421
 mass spectra, 502
 saponification, 763
 transesterification of, 919
 Whale, beluga (Delphinapterus leucas), fatty acid and triglyceride profiles of blubber and meion oils, 674
 Wheat, analytical scheme for lipids of flour, 768
 glycerides, fatty acid comp, 768
 leaf wax, 641
 rust infected, formation of epoxystearate, 581
 stereoanalysis of glycerolipids, 768
 tocopherol content of seeds, 291
 Wheat flour, molecule species in lipids of, 768
 Wheat germ oil, tocopherol content, 291 421

XYZ

X-ray diffraction, long chain alcohols, esters with fatty acids, 421
o-Xylene, thermal oxidation product of methyl cleate, 758
p-Xylene, microbial oxidation, 453
Yeast, alkane and alcohol metabolism by, 444

